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Hitachi Virtual Storage Platform G1000
Audit Log User Guide

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MK-92RD8008-01

Hitachi Data Systems

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Preface

This document provides instructions for using the Audit Log function on the Hitachi Virtual Storage Platform G1000 storage system.

Please read this document carefully to understand how to use this product, and maintain a copy for reference purposes.

- ☐ Intended audience
- ☐ Product version
- ☐ Document revision level
- ☐ Changes in this revision
- ☐ Referenced documents
- ☐ Document conventions
- ☐ Convention for storage capacity values
- ☐ Accessing product documentation
- ☐ Getting help
- ☐ Comments

Intended audience

This document is intended for system administrators, Hitachi Data Systems representatives, and authorized service providers who are involved in installing, configuring, and operating the Device Manager - Storage Navigator storage system.

Readers of this document should have at least the following knowledge and experience:

- You should have a background in data processing and understand RAID storage systems and their basic functions.
- You should be familiar with the Device Manager - Storage Navigator software for the Virtual Storage Platform G1000 and have read the *Hitachi Command Suite User Guide* or the *Hitachi Virtual Storage Platform G1000 System Administrator Guide*.
- You should be familiar with the operating system and web browser software on the system hosting the Device Manager - Storage Navigator software.

Product version

This document revision applies to Hitachi Virtual Storage Platform G1000 microcode 80-02-4x and later.

Document revision level

Revision	Date	Description
MK-92RD8008-00	February 2015	Initial release.
MK-92RD8008-01	May 2015	Supersedes and replaces MK-92RD8008-00.

Changes in this revision

- Added the following sections:
  - [PROV] CreateTiVolumes on page 4-114
  - [PROV] DeleteTiVolumes on page 4-119
  - [PROV] Force Del MF V-VOLs on page 4-141
  - [PROV] ExecBindingOperation on page 4-139
  - [PROV] CreateAlus on page 4-112
  - [PROV] DeleteSlus on page 4-119
  - [PROV] ExpandSlus on page 4-140
- Updated the following sections:
  - [PROV] CreateSlus on page 4-113

- Using Actions menu on page A-3
- [Install] Set Subsystem Time on page 4-70
- Device Manager - Storage Navigator and SVP operation on page 3-2, Using Actions menu on page A-3
- Audit log file format on page 1-4, Log output formats for different versions on page 1-10
- [Install] Install CV on page 4-54
- [Install] Make Volume on page 4-55
- [Install] Set Subsystem Time on page 4-70
- [Install] Volume to Space on page 4-74
- Table A-4 Logical Device on page A-3

Referenced documents

- *Hitachi Virtual Storage Platform G1000 Hardware Guide*, MK-92RD8007
- *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Open Systems*, MK-92RD8014
- *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Mainframe Systems*, MK-92RD8013
- *Hitachi Command Suite User Guide* or *Hitachi Virtual Storage Platform G1000 System Administrator Guide*, MK-92RD8016

Document conventions

The term "Hitachi Virtual Storage Platform G1000" refer to all models of the Hitachi Virtual Storage Platform G1000, unless otherwise noted.

This document uses the following typographic conventions:

Convention	Description
Bold	Indicates text on a window, other than the window title, including menus, menu options, buttons, fields, and labels. Example: Click **OK**.
Italic	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: copy *source-file target-file* ***Note:*** Angled brackets (< >) are also used to indicate variables.
`screen/code`	Indicates text that is displayed on screen or entered by the user. Example: `# pairdisplay -g oradb`
< > angled brackets	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: `# pairdisplay -g <group>` ***Note:*** Italic font is also used to indicate variables.

Convention	Description
[ ] square brackets	Indicates optional values. Example: [a | b] indicates that you can choose a, b, or nothing.
{ } braces	Indicates required or expected values. Example: { a | b } indicates that you must choose either a or b.
| vertical bar	Indicates that you have a choice between two or more options or arguments. Examples: [a | b] indicates that you can choose a, b, or nothing. { a | b } indicates that you must choose either a or b.

This document uses the following icons to draw attention to information:

Icon	Meaning	Description
	Tip	Tips provide helpful information, guidelines, or suggestions for performing tasks more effectively.
	Note	Notes emphasize or supplement important points of the main text.
	Caution	Cautions indicate that failure to take a specified action could result in damage to the software or hardware.
	WARNING	Warnings indicate that failure to take a specified action could result in loss of data or serious damage to hardware.

Convention for storage capacity values

Physical storage capacity values (disk drive capacity) are calculated based on the following values:

Physical capacity unit	Value
1 KB	1,000 bytes
1 MB	$1,000^2$ bytes
1 GB	$1,000^3$ bytes
1 TB	$1,000^4$ bytes
1 PB	$1,000^5$ bytes
1 EB	$1,000^6$ bytes

Logical storage capacity values (logical device capacity) are calculated based on the following values:

Logical capacity unit	Value
1 KB	1,024 bytes
1 MB	1,024 KB or $1,024^2$ bytes
1 GB	1,024 MB or $1,024^3$ bytes
1 TB	1,024 GB or $1,024^4$ bytes
1 PB	1,024 TB or $1,024^5$ bytes
1 EB	1,024 PB or $1,024^6$ bytes
1 block	512 bytes

1 Cyl	• For open systems
	  ◦ OPEN-V: 960 KB
	  ◦ Other than OPEN-V: 720 KB
	• For mainframe systems: 870 KB

Accessing product documentation

The Hitachi Virtual Storage Platform G1000 user documentation is available on the Hitachi Data Systems Support Portal: https://hdssupport.hds.com. Please check this site for the most current documentation, including important updates that may have been made after the release of the product.

Getting help

The Hitachi Data Systems customer support staff is available 24 hours a day, seven days a week. If you need technical support, log on to the Hitachi Data Systems Support Portal for contact information: https://hdssupport.hds.com

Comments

Please send us your comments on this document: doc.comments@hds.com. Include the document title, number, and revision. Please refer to specific section(s) and paragraph(s) whenever possible.

Thank you! (All comments become the property of Hitachi Data Systems.)

1

Introduction

Audit logs are created on the Service Processor (SVP) computer in the storage system. You can access the audit logs that are output by the SVP, but the SVP is accessible only by support personnel.

- Overview
- Audit Log file description
- Audit log file format
- Log output formats for different versions
- Syslog file format

Overview

The audit log is an important tool that you can use to keep track of operations, to monitor security, to investigate the cause of errors, and to avoid potential errors.

Audit logs are created on the SVP computer in the storage system. You can access the audit logs that are output by the SVP, but the SVP is accessible only by support personnel.

Audit logs store the following histories:

- Operations performed from a Device Manager - Storage Navigator computer or an SVP.
- Commands that the storage system received from a host, a computer using CCI, or a host using Business Continuity Manager.
- Operations and events about encryption keys for data encryption.

The history may not be output in chronological order. This history includes the user, the time of the operation, the name of the operation, any parameters set, and the end result (normal completion or error message). Each audit log file ends with a serial number, from 0,000,000,000 to 4,294,967,295. When the number reaches 4,294,967,295, it resets and starts over at 0,000,000,000.

There are two types of audit log files:

- **Audit log file**, which consists of two files:
  - Auditlog information file 1 contains operations performed from the Device Manager - Storage Navigator computer or SVP, and operations about encryption keys.
  - Auditlog information file 2 contains commands sent from a host, a computer using CCI, or a host using Business Continuity Manager, and events about encryption keys.

  You can download them to your Device Manager - Storage Navigator computer or transfer to a primary or secondary FTP server.
- **Syslog file.** This file contains the audit log. You can download it to your Device Manager - Storage Navigator computer or transfer it to a primary or secondary syslog server.

  The syslog file has two types of formats: RFC3164-compliant and RFC5424-compliant. You can select either of the formats when downloading syslog files and transferring syslog files to syslog servers.

Features

The audit log feature stores a history of all operations performed on a computer using the Device Manager - Storage Navigator feature. This history includes the user, the time of the operation, the name of the operation, any parameter set, and the end result (normal completion or error message). The audit log file records until full and then starts over, rerecording from the beginning of the file.

Audit Log file description

The following table describes the audit log file components:

Table 1-1 Audit Log File Components

Component	Audit Log File	Syslog File
File Type	Text format. Auditlog information file 1 Auditlog information file 2 Files are compressed in tgz format.	Text format. In syslogYYYYMMDD.tgz, there are syslog-svp.log (audit log file for SVP) and syslog-dkc.log (audit log file for DKC).
Downloaded File Name	audit-SVPYYYYMMDD.tgz or audit-DKCYYYYMMDD.tgz where YYYY = year MM = month DD = day The file name can be changed when downloading.	syslogYYYYMMDD.tgz where YYYY = year MM = month DD = day The file name can be changed when downloading.
File Name Transferred to the FTP Server	Audit-SVPSSSSSYYYYMMDDHHMMSS.tgz or Audit-DKCSSSSSYYYYMMDDHHMMSS.tgz where SSSSS = serial number YYYYMMDD = date of the transfer HHMMSS = hour (HH), minute (MM) and second (SS) of the transfer The output folder must be specified in the FTP tab on the Edit Audit log Settings window.	N/A
Linefeed Codes	CR + LF The standard linefeed codes for Windows. Some text editors cannot display these codes correctly.	LF The standard linefeed codes for UNIX. Some text editors cannot display these codes correctly.
File Output	Contains login and logout information as well as basic and detailed information about settings made for each option. • Basic information consists of information common to each audit log. • Detailed information consists of information about the operations of each executed option. This includes an index	Contains the same information as released to the audit log file. However the output format differs between the audit log file and syslog file. (some items are output to the syslog file only.)

Component	Audit Log File	Syslog File
	representing each item and its values.	
Maximum Line Size	1,024 bytes	1,024 bytes
Maximum Number of Lines	250,000 lines	250,000 lines
Maximum Size of Files	122.5 MB	488.2 MB
When Reaching the Maximum Number of Lines	The newest data overwrites the oldest data (wrap around). is shown on the Device Manager - Storage Navigator main window.	The newest data overwrites the oldest data (wrap around). Also, the following log is output in the syslog file. • [AuditLog], Over MaxLine
Threshold of the Maximum Number of Lines and When Reaching Threshold	The threshold value is 70% (175,000 lines) of the maximum number of lines. • If the audit log information reaches the threshold, a warning message urging you to download the audit log file appears when you log in Device Manager - Storage Navigator. Also, is shown on the Device Manager - Storage Navigator main window. • If you set to transfer files to an FTP server, the audit log file will be automatically transferred to the FTP server when the information stored in the audit log file reaches the threshold. • Once you download or transfer the audit log file, the counter is reset and monitoring will start from 0% again.	The threshold value is 70% (175,000 lines) of the maximum number of lines. When the audit log information reaches the threshold, the following log is output in the syslog file. • [AuditLog], Over Threshold If this log is output, download the file as necessary before old information is overwritten. Once you download the file, the counter is reset and monitoring will start from 0% again.

Audit log file format

The following figures show sample audit log files:

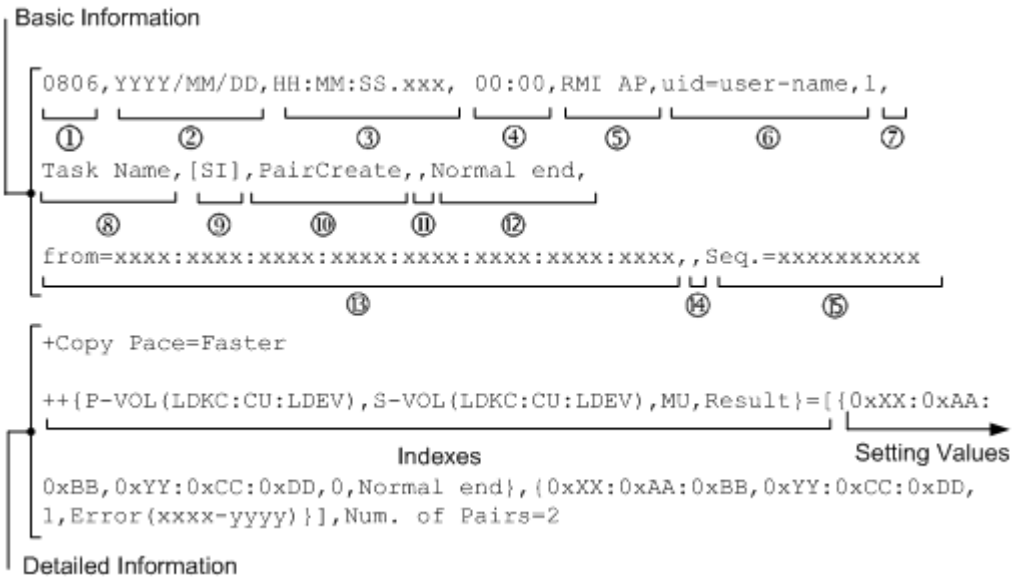


Figure 1-1 Audit Log File 1 (SVP)

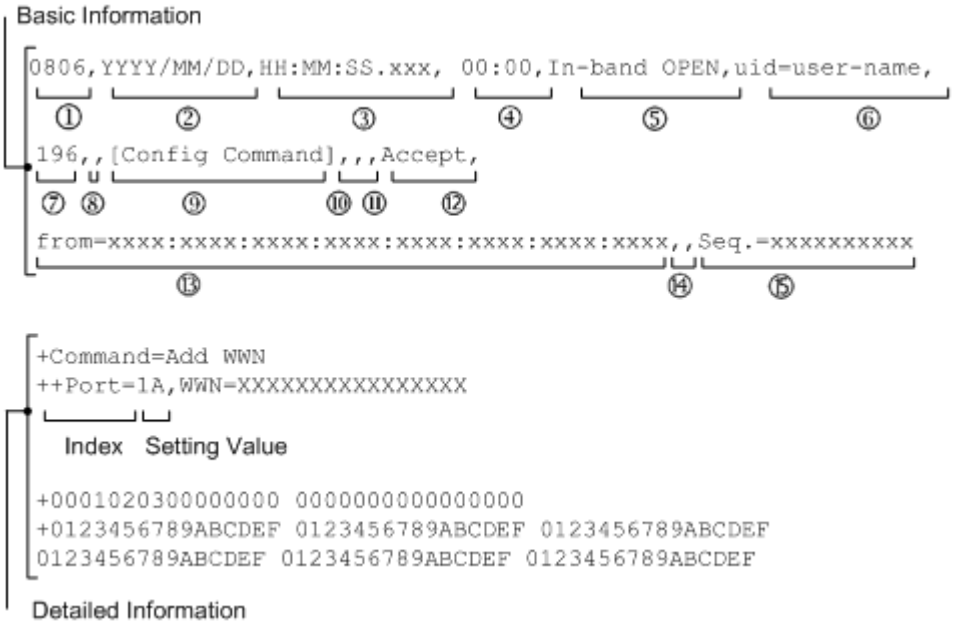


Figure 1-2 Audit Log File 2 (DKC)

Basic Information

Each item output in the audit log information file is delimited by commas (,).

Table 1-2 Basic Information in Audit Log File

No.	Item	File 1 (SVP)	File 2 (DKC)
①	Version	XXYY indicates the model name (XX) and the version number in audit log output format (YY).	Same as File 1.

No.	Item	File 1 (SVP)	File 2 (DKC)
		When the output format is changed, the value of YY is updated. See Table 1-3 Format changes for each version number on page 1-10 for the changed contents of XXYY.	
②	Date	YYYYMMDD indicates the year, month, and day the audit log was created. A date and a time being set on the SVP are output as log data. If a failure, such as an SVP failure and a LAN failure, occurs in the storage system, the data and the time may be output of the accumulated date and time since January 01, 1970.	Same as File 1.
③	Time	HH:MM:SS.xxx indicates the hour, minute, second, and millisecond the audit log was created.	Same as File 1.
④	Time zone	The time difference between Coordinated Universal Time (UTC) and the local time displays as "±HH:MM" (HH: hour, MM: minute). For example; "+09:00", "-08:00", "00:00"	Same as File 1.
⑤	Interface	• RMI AP indicates the log for Device Manager - Storage Navigator and Remote Method Invocation Applications such as Hitachi Command Suite (HCS). • SVP indicates the log for the SVP. • RM AP indicates the log for Remote Maintenance Application.	• In-band OPEN indicates open-system hosts. • In-band MF indicates mainframe system hosts. • Out-of-band indicates hosts through the SVP. • No output for the event about encryption keys.
⑥	Login user Name	• A user name is output for Device Manager - Storage Navigator, RMI AP or SVP operations. • <System> is output when the storage system detects the failure. • No output for RM AP operations.	• A user name is output for commands received by a command device for authentication. • <Host> is output for other operations. • <system> is output for the event about encryption keys.

No.	Item	File 1 (SVP)	File 2 (DKC)
⑦	Connection number	• 0 - 161 indicate Device Manager - Storage Navigator or SVP connection ID. • 162 - 193 indicate Hitachi Command Suite and RMI AP connection ID. • 194 indicates SMI-S(RMI) connection ID. • No output for RM AP operations. • No output when the login user name is <System>.	• 195 - 706 indicate a connection number assigned when a command device for authentication received the command. • No output for other operations.
⑧	Task name	Task name specified when a task is registered. No task name is output when a user performs operations using the Device Manager - Storage Navigator secondary window.	No output.
⑨	Function name	The abbreviation indicating the function that performed the operation. • Maintenance window name is output for SVP operations.	• User Auth indicates an user authentication command. • FC-SP indicates a device authentication command. • Config Command indicates a configuration changing command. • [ENC] is output for the event about encryption keys.
⑩	Operation or event name	The operation or event name.	The following items are output only when Function name is User Auth. No output for other operations. • Login indicates that a log-in command is received. • Logout indicates that a log-out command is received. The event name is output when the function name is [ENC].
⑪	Parameters	Parameters for certain functions.	No output.
⑫	Result	The result of your operation. • Normal end. The operation has ended normally. • Error (xxxx-yyyyy). The operation has ended abnormally. • Warning (xxxx-yyyyy). The operation has partly ended abnormally or was canceled during the operation.	The result of the received commands. • Normal end. The authentication has ended normally, or the event about encryption keys occurs. • Error. The authentication has ended abnormally. • Accept. Received the commands from the host.

No.	Item	File 1 (SVP)	File 2 (DKC)
		xxxxx-yyyyyy is an error code. xxxxx is a part code of four or five digits showing where the error occurs. yyyyyy is a message ID of four, five, or six digits. For more information about error codes, see *Hitachi Device Manager - Storage Navigator Messages*. Note that error codes "xxxx-yyyyy" appear only for Device Manager - Storage Navigator operations.	• Reject. Rejected the commands from the host.
⑬	Host Identification	An IP address (IPv4 or IPv6) is output for Device Manager - Storage Navigator, RMI AP and SVP operations. The IP address may be that of the proxy server or the router depending on the configuration of the connected network. No output for RM AP operations. No output when the login user name is <System>. If both IPv4 and IPv6 are available for communication between the Device Manager - Storage Navigator computer and the SVP, but the Device Manager - Storage Navigator secondary window uses IPv4 communication. In this case, IPv4 addresses are output to audit logs.	• A host name is output for commands from hosts through the SVP. • A WWN is output for the FC-SP authentication. • A WWN is output for commands from open-system hosts. • A serial number is output for commands mainframe system hosts. • If a command comes from other storage system, the WWN or serial number of the storage system is output. • No output for the event about encryption keys.
⑭	Application Identification	No output.	• An internal-use ID is output for open-system hosts. • An LPR number is output for mainframe system hosts. • 0x0000 is output if a command comes from other storage system. • No output for other commands. No output for the FC-SP authentication, computers using CCI, hosts using Business Continuity Manager or the event about encryption keys.
⑮	Serial number	The serial number of the saved log information (0000000000 to 4294967295). When the number reaches 4,294,967,295, it is reset to 0000000000.	Same as File 1.

Detailed Information

The indexes and setting values that indicates the set items are output to the detailed information. There are two types of the detailed information format.

Detailed information format 1

Example:

```
+Copy Type=TI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),PoolID,MU,
Snapshot Group,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,1,SnapshotSet1,Normal end},
{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,,SnapshotSet2,Error(xxxx-yyyy)}],
Num. of Pairs=2
```

Symbol	Definition
+ and -	'+' or '-' displays at the beginning of a line. '+' means the beginning of the index. The number of occurrences of '+' represents the number of indents. '-' means that the line continues from the previous line.
=	Connects an index and a setting value.
[ ]	When there is more than one setting value for an index, the setting values are enclosed by [ ], and separated by a comma (,). *Example:* CU:LDEV=[0x00:0x00,0x00:0x01,0x00:0x02]
{ }	Details are enclosed by {}. *Example:* {Port,Fabric,Connection}=[{1E,ON,FC-AL},{3E,OFF,P-to-P}]
( )	Supplementary and additional information for setting values are enclosed by ( ). *Example:* {VOL(CU:LDEV),Result}={0x00:0x01,Error(xxxx-yyyy)}

Note: If there is an item that is not specified when entering commands or performing operations, a hyphen (-) is output for its setting value, no setting value is output, or the index itself is not output.

Detailed information format 2

Example:

```
+{Alus[0]{
  Id="60-06-0E-81-30-76-D9-30-76-D9-00-00-00-00-00-49",
  Result=Normal end,LdevId=0x00:0x00:0x49}}
```

Note: Line feeds are added to make the example easy to see, while no line feed is added to the actual logs.

Symbol	Definition
+ and -	'+' or '-' displays at the beginning of a line. • '+' means the beginning of the index. The number of occurrences of '+' represents the number of indents.

Symbol	Definition
	• '-' means that the line continues from the previous one.
{ }	The tiering relation is indicated by the following format. *Parent setting item*{*Child setting item 1*, *Child setting item 2*{*Grandchild setting item 2-1*, *Grand child setting item 2-2*,...},...}
=	Connects an index and a setting value.
[*x*]	For the log output by the command or operation in which multiple resources or items of the same type can be set at one time, the resource or item of the same type is indicated as follows. *Setting item*[*x*] (where *x* is a number: 0, 1, 2,...)

Note: If there is an item that is not specified when entering commands or performing operations, "null" is output for its setting value, or the index itself is not output.

Log output formats for different versions

Table 1-3 Format changes for each version number

Version number	Changes
0802	The log output format for DKCMAIN program version 80-01-2x-xx/xx (xx is a two-digit number.) or later.
0803	The log output format for DKCMAIN program version 80-01-4x-xx/xx (xx is a two-digit number.) or later. The following formats are changed from version number 0802. There are no changes to other log formats. • Output format of the detailed information for [Remote Replication] Create Pairs • Output format of the detailed information for [Remote Replication] Delete Pairs • Output format of the detailed information for [Remote Replication] Edit Options • Output format of the detailed information for [Remote Replication] Resync Pairs
0804	The log output format for DKCMAIN program version 80-02-0x-xx/xx (xx is a two-digit number.) or later. The following formats are changed from version number 0803. There are no changes to other log formats. • Output format of the detailed information for [PROV] Create/Expand Pools • Output format of the detailed information for [PROV] Edit/Delete Pools
0805	The log output format for DKCMAIN program version 80-02-2x-xx/xx (xx is a two-digit number.) or later. The following formats are changed from version number 0804. There are no changes to other log formats. • Changed the function name from [BASE] Edit System Options to [BASE] Advanced Settings

Version number	Changes
0806	The log output format for DKCMAIN program version 80-02-4x-xx/xx (xx is a two-digit number.) or later. The following formats are changed from version number 0805. There are no changes to other log formats. • Output format of the detailed information for [Install] Set Subsystem Time • Output format of the detailed information for [PROV] Create LDEVs

Syslog file format

Syslog file format (RFC3164-compliant)

The following figure shows a sample syslog file.

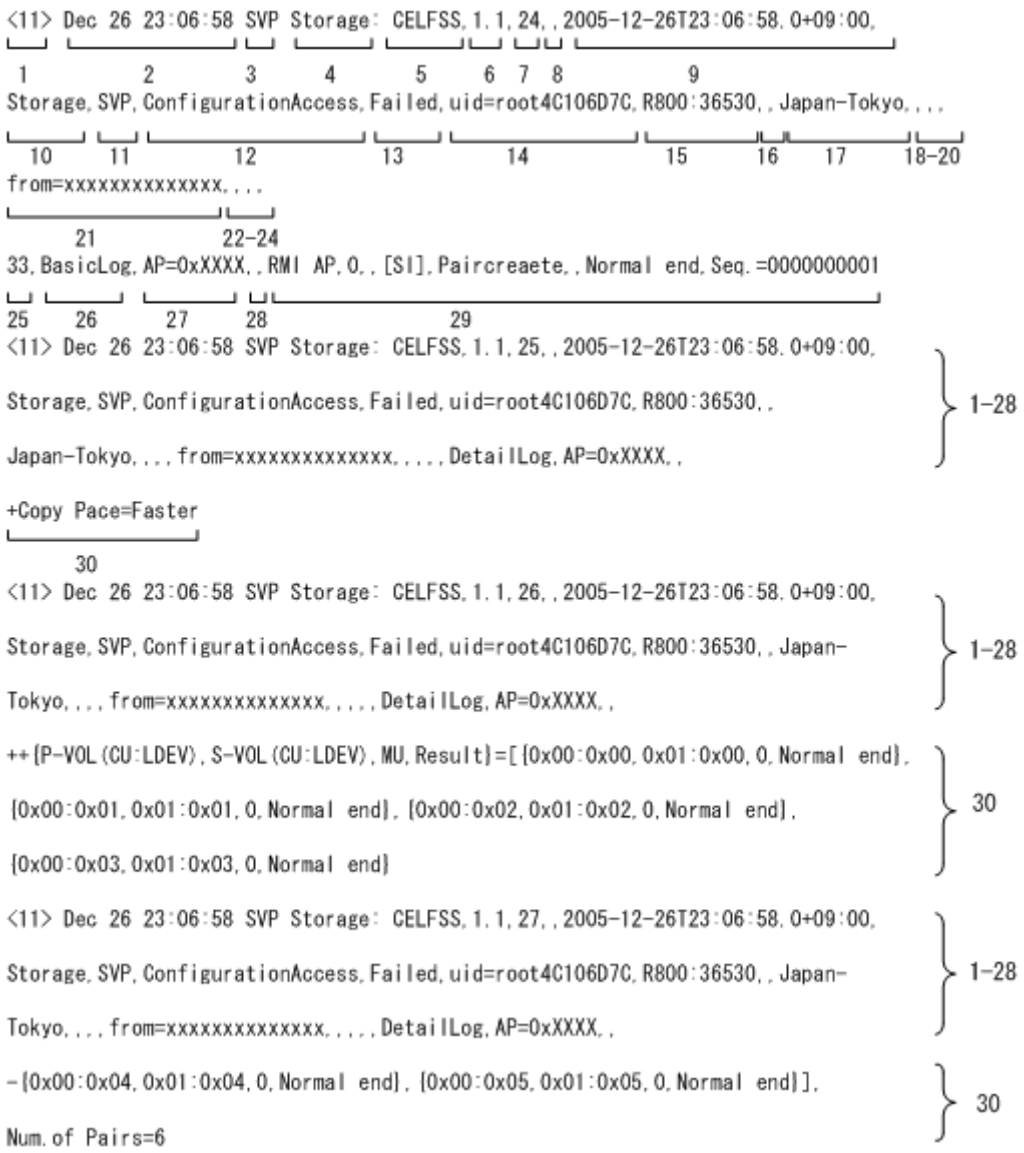


Figure 1-3 Syslog File (RFC3164-compliant)

Item 29 and 30 are output either one of them in one syslog information.

Table 1-4 Items in the Syslog File (RFC3164-compliant)

No.	Item	Description
①	Priority	The priority of an item in the syslog file is determined according to the following formula, enclosed by brackets (< >): Priority = 8 X Facility + Severity Facility is 1 (fixed). Severity depends on the type of log information: • 4: Error or Warning. Error means the operation has ended abnormally. Warning means the operation has partly ended abnormally or was canceled during the operation. • 6: Informational. The operation has ended normally.

No.	Item	Description
		For example, <12> indicates the priority when the severity is error.
②	Date, time*	The date and time in the format of "MMM DD HH:MM:SS" (MMM: month such as Jan or Dec, DD: day, HH: hour, MM: minute and SS: second). If the "DD" is a single digit (for example, 1), it is displayed as " 1" (with a blank space before "1") and not as "01".
③	Detected location	The host name (SVP).
④	Program name	The detection entity identifier (Storage).
⑤	Unified specification identification	The Unified specification identifier (CELFSS).
⑥		The revision number of the Unified specification document (1.1).
⑦	Message identification	The serial number of the syslog header information.
⑧		No output
⑨	Date, time#2*	The date, time and the time difference between UTC and the local time in the format of "YYYY-MM-DD-Thh:mm:ss.s ± hh:mm". • YYYY: year, MM: month, DD: day • hh: hour, mm: minute, ss.s: second in one decimal place. • ± hh:mm: hours and minute of the time difference. "Z" is displayed instead of "± hh:mm" when there is no time difference between UTC and the local time, such as "2005-12-26T:23:06:58.0Z".
⑩	Detection entity	The detection entity identifier (Storage).
⑪	Detected location	The host name (SVP).
⑫	Type of audit event	The category name of the event. • Authentication of RMI, FC-SP, or Device Manager - Storage Navigator. • ConfigurationAccess indicates setting from Device Manager - Storage Navigator, SVP or host. • Maintenance indicates SVP operations. • AnomalyEvent indicates reached the maximum of the Audit Log, etc. • ExternalService indicates remote maintenance operations through SVP.

No.	Item	Description
⑬	Result of audit event	• Success: Normal end. The operation has ended normally. • Failed: Error (xxxx-yyyy). The operation has ended abnormally. • Failed: Warning (xxxx-yyyy). The operation has partly ended abnormally or was canceled during the operation. "xxxx-yyyyy" indicates error codes and it is output only for Device Manager - Storage Navigator operations.
⑭	Subject identification	The user name in the format of "uid=user name". • <system> is output when the category name is AnomalyEvent. • <DKCMaintenance> is output for SVP operations. • <Host> is output for commands from host.
⑮	Hardware identification	The ID (R800) to identify the model name of the product and the serial number divided by a colon.
⑯	Generated location	No output.
⑰	Related information	The location identification name set by the user in the Syslog tab on Edit Audit Log Settings window.
⑱		No output.
⑲		No output.
⑳	Agent information	No output.
㉑	Detailed information	Identification of the host sending the request. This information is output when a command is received from the host unless it is FC-SP authentication.
㉒		No output.
㉓		No output.
㉔		No output.
㉕		Collective operation identifier. This is a serial number that identifies those multiple lines displayed by one operation are the same operation. Outputs only if the log type information is "BasicLog" and the category name is other than "AnomalyEvent".
㉖		Log type information: • BasicLog: basic information • DetailLog: detailed information

No.	Item	Description
		No output when the category name is "AnomalyEvent".
㉗		Identification of the application. This information is output when commands are sent from the host.
㉘		No output.
㉙		The same information contained in the basic information of the audit log file, such as interface, connection number, task name, function name, operation name, parameter, result, and serial number. Task name is output only when a task is registered using Device Manager - Storage Navigator. No parameter is output if the operation has no parameters. No serial number is output when the category name is "AnomalyEvent".
㉚		The same information contained in the detailed information of the audit log file.
*A date and time being set on SVP are output as log data. If a failure, such as a SVP failure and a LAN failure, occurs in the storage system, the data and time may be output of the accumulated date and time since January 01, 1970.		

Syslog file format (RFC5424-compliant)

```
<14>1 2005-12-26T23:06:58.0+09:00 SVP Storage - - - CELFSS,1.1,24,ConfigrationAccess,
 1  2            3                  4     5     6 7 8   9     10  11      12
,
Failed,uid=root4C106D7C,R800:36530,Japan-Tokyo,from=XXXXXXXXXXXXXX,33,BasicLog,
  13        14              15          16             17          18   19

AP=0xXXXX,SVP,xx,xx,[SI],Paircreate,,Normal end,Seq.=0000000001
   20                    21


<14>1 2005-12-26T23:06:58.0+09:00 SVP Storage - - - CELFSS,1.1,24,ConfigrationAccess,
Failed,uid=root4C106D7C,R800:36530,JapanTokyo,from=XXXXXXXXXXXXXX,,DetailLog,
AP=0xXXXX,
                                  1-20

+Copy Pace=Faster
      22
```

Figure 1-4 syslog file (RFC5424-compliant)

Item 21 and 22 are output either one of them in one syslog information.

Table 1-5 Items in the Syslog File (RFC5424-compliant)

No.	Item	Description
①	Priority	The priority of an item in the syslog file is determined according to the following formula, enclosed by brackets (< >): Priority = 8 X Facility + Severity Facility is 1 (fixed). Severity depends on the type of log information: • 4: Error or Warning. Error means the operation has ended abnormally. Warning means the operation has partly ended abnormally or was canceled during the operation. • 6: Informational. The operation has ended normally. For example, <12> indicates the priority when the severity is error.
②	Version	The version (1).
③	Date, time*	The date, time and the time difference between UTC and the local time in the format of "YYYY-MM-DD-Thh:mm:ss.s ± hh:mm". • YYYY: year, MM: month, DD: day • hh: hour, mm: minute, ss.s: second in one decimal place. • ± hh:mm: hours and minute of the time difference. "Z" is displayed instead of "± hh:mm" when there is no time difference between UTC and the local time, such as "2005-12-26T:23:06:58.0Z".
④	Detected location	The host name (SVP).
⑤	Program name	The detection entity identifier (Storage).
⑥	Process name	The process name (-).
⑦	Message ID	The message ID (-).
⑧	Structured data	The structured data (-).
⑨	Unified specification identification	The unified specification identifier (CELFSS).
⑩		The revision number of the unified specification document (1.1).
⑪	Message identification	The serial number of the syslog header information.
⑫	Type of audit event	The category name of the event.

No.	Item	Description
		• Authentication of RMI, FC-SP, or Device Manager - Storage Navigator. • ConfigurationAccess indicates setting from Device Manager - Storage Navigator, SVP or host. • Maintenance indicates SVP operations. • AnomalyEvent indicates reached the maximum of the Audit Log, etc. • ExternalService indicates remote maintenance operations through SVP.
⑬	Result of audit event	• Success: Normal end. The operation has ended normally. • Failed: Error (xxxx-yyyy). The operation has ended abnormally. • Failed: Warning (xxxx-yyyy). The operation has partly ended abnormally or was canceled during the operation. "xxxx-yyyyy" indicates error codes and it is output only for Device Manager - Storage Navigator operations.
⑭	Account identification	The user name in the format of "uid=user name". • <system> is output when the category name is AnomalyEvent. • <DKCMaintenance> is output for SVP operations. • <Host> is output for commands from host.
⑮	Hardware identification	The ID (R800) to identify the model name of the product and the serial number divided by a colon.
⑯	Related information	The location identification name set by the user in the Syslog tab of Edit Audit Log Settings window.
⑰	Detailed information	Identification of the host sending the request. This information is output when a command is received from the host unless it is FC-SP authentication.
⑱		Collective operation identifier. This is a serial number that identifies those multiple lines displayed by one operation are the same operation. Outputs only if the log type information is "BasicLog" and the category name is other than "AnomalyEvent".
⑲		Log type information: • BasicLog: basic information • DetailLog: detailed information No output when the category name is "AnomalyEvent".
⑳		Identification of the application. This information is output when commands are sent from the host.
㉑	Detailed information	The same information contained in the basic information of the audit log file, such as interface, connection number, task name, function name, operation name, parameter, result, and serial number. Task name is output only when a task is registered using Device Manager - Storage Navigator. No parameter is

No.	Item	Description
		output if the operation has no parameters. No serial number is output when the category name is "AnomalyEvent".
㉒		The same information contained in the detailed information of the audit log file. No serial number is output when the category name is "AnomalyEvent".
*A date and time being set on SVP are output as log data. If a failure, such as a SVP failure and a LAN failure, occurs in the storage system, the data and time may be output of the accumulated date and time since January 01, 1970.		

2

Using audit logs

You can download audit log files and syslog files to Device Manager - Storage Navigator computer or transfer audit log files to FTP servers or syslog servers.

- Downloading audit log files
- Downloading syslog files
- Automatically transferring audit log files to FTP servers
- Completing SIM generated when FTP transfer of audit log files failed
- Manually transferring audit log files to FTP servers
- Transferring audit log to syslog servers

Downloading audit log files

Download the audit log files to Device Manager - Storage Navigator computer to prevent the old data from being overwritten. It takes from one to five minutes to download the audit log file.

WARNING: Do not download the audit log file to the Device Manager - Storage Navigator computer if the audit log is set to be transferred to an FTP server. Some information may not be transferred to the FTP server because the line counter resets when the audit log file is manually downloaded. Download the file only when the FTP server has failed and cannot receive the audit log file. If you want to transfer the audit log to the FTP server after downloading the log, transfer it manually. See Manually transferring audit log files to FTP servers on page 2-5 for more information.

Prerequisites

- You must have Audit Log Administrator (View Only) or Audit Log Administrator (View & Modify) role to download audit log files.

To download the audit log file:

1. Click **Audit Log** on the menu bar of the Device Manager - Storage Navigator main window. The **Audit Log Properties** window opens. Each icon displayed on the menu bar indicates the accumulated status of the audit log information.
   - indicates the number of saved lines is below the threshold.
   - indicates the number of saved lines is above the threshold, but the data is still being saved.
   - indicates the number of saved lines has exceeded the maximum, and data is partly lost because the newest lines were overwritten the oldest lines.
2. Click **Download (SVP)** or **Download (DKC)** to open the Save As dialog box. **Download (SVP)** downloads the auditlog information file 1 and **Download (DKC)** downloads the auditlog information file 2.
3. Select a destination for the file and click **Save**.
4. Click **Close** to close the Audit Log Properties window.

Related topics

- Audit Log Properties window on page C-2

Downloading syslog files

Syslog files stored in the storage system can be downloaded to the Device Manager - Storage Navigator computer as necessary. It takes from one to five minutes to download the syslog file.

Prerequisites

- You must have Audit Log Administrator (View Only) or Audit Log Administrator (View & Modify) role to download syslog files.

To download the syslog file from SVP:

1. Click **Settings** > **Security** > **Edit Audit Log Settings**. Select **Syslog** tab on the **Edit Audit Log Settings** window.
2. Select **Transfer Protocol**. The output file format is different by the selected protocol.
3. Click **Download Syslog**. The Specify the Destination dialog box appears.
4. Enter the destination and the file name and click **Save**.

Related topics

- Edit Audit Log Settings wizard on page C-3

Automatically transferring audit log files to FTP servers

If you configure FTP server settings, the audit log will be automatically transferred to the FTP server when the number of lines in the file reaches the threshold.

Note: Keep a list of the items such as the IP address you entered in the **FTP** tab on **Edit Audit Log Settings** window. You may need to enter them again when an SVP is replaced.

Prerequisites

- You must have Audit Log Administrator (View & Modify) role to configure FTP server settings.
- Ensure that SVP is connected to the FTP server on a LAN.

To transfer the audit log file to the FTP server:

1. Click **Settings** > **Security** > **Edit Audit log Settings**. Select **FTP** tab on the **Edit Audit Log Settings** window.
2. Perform the following if using a primary FTP server.
   a. Click **Enable** the Primary Server.
   b. Select **IPv4** or **IPv6** on **IP Address** setting and enter the IP address.
   c. Enter the user name and the password you use to log in to the primary FTP server.
   d. Enter the output folder to which the audit log file is sent with the relative path from the home directory.
3. Perform the following if using a secondary FTP server.
   a. Click **Enable** the Secondary Server.

b. Select **IPv4** or **IPv6** on **IP Address** setting and enter the IP address.

c. Enter the user name and the password you use to log in to the secondary FTP server.

d. Enter the output folder to which the audit log file is sent with the relative path from the home directory.

4. Click **Finish**.
5. Confirm the settings from the setting confirmation window, and then enter the task name on **Task Name**.
6. Click **Apply**. The task is registered. If you check the **Go to tasks window for status** check box, the **Task** window is displayed.
7. Manually transfer the audit log file to confirm that the FTP server setting is correct.

   a. Check that the transfer setting task to the FTP server is complete on the **Task** window. If the task has not completed, wait until it is complete.

   b. Transfer the audit log file to the FTP server manually to confirm that the FTP server setting is correct. For details of manual transfer, see Manually transferring audit log files to FTP servers on page 2-5.

Troubleshooting

A SIM notifies a storage administrator that an FTP transfer has failed. This can occur when the audit log file is not transferred to an FTP server because either the FTP server or LAN has failed. You can view the SIM in the **Alerts** window. The reference code for a failed FTP transfer is *7C0300*. If a SIM is reported, do the following:

- Resolve the error on the FTP server or LAN, and then manually transfer the audit log file. And then complete the SIM referring to Completing SIM generated when FTP transfer of audit log files failed on page 2-5.

  If the instructions in SIM is not complete, SIM will not be generated on next transfer failure.
- If the error condition cannot be resolved, download the audit log file to the Device Manager - Storage Navigator computer by clicking **Audit Log** on the upper right of the Device Manager - Storage Navigator main window.

Related topics

- Edit Audit Log Settings wizard on page C-3

Completing SIM generated when FTP transfer of audit log files failed

Prerequisites

- You must have Audit Log Administrator (View & Modify) and Storage Administrator (System Resource Management) role to complete SIM.

To complete SIM:

1. Click **Settings** > **Security** > **Edit Audit log Settings**. Select **FTP** tab on the **Edit Audit Log Settings** window.
2. Select **Complete SIMs** check box.
3. Click **Finish**.
4. Confirm the settings from the setting confirmation window, and then enter the task name on **Task Name**.
5. Click **Apply**. The task is registered. If you check the **Go to tasks window for status** check box, the **Task** window is displayed.

Related topics

- Edit Audit Log Settings wizard on page C-3

Manually transferring audit log files to FTP servers

You can transfer the audit log file manually from the SVP to the FTP server.

Prerequisites

- You must have Audit Log Administrator (View Only) or Audit Log Administrator (View & Modify) role.
- Ensure that SVP is connected to the FTP server on a LAN.
- Transfer setting to the FTP server must be finished. For how to set, refer to Automatically transferring audit log files to FTP servers on page 2-3.

To transfer the audit log file to the FTP server:

1. Click **Settings** > **Security** > **Edit Audit log Settings**. Select **FTP** tab on the **Edit Audit Log Settings** window.
2. Click **Transfer to Primary Server** or **Transfer to Secondary Server**. A message appears indicating that the transfer has completed.

Related topics

- Edit Audit Log Settings wizard on page C-3

Transferring audit log to syslog servers

If you configure syslog server settings, the audit log will always be transferred to the syslog server and stored as the syslog files.

You can select either of the following protocols to transfer the audit log to the syslog server. The output file format is different by the selected protocol.

- TLS1.2/RFC5424
- UDP/RFC3164

Note: When you use UDP/RFC3164, consider the characteristics of UDP (User Datagram Protocol) when designing a network. See RFC3164 (Request for Comments) issued by IETF (Internet Engineering Task Force) for more details.

Note: Keep a list of the items such as the IP address you entered in the **Syslog** tab on **Edit Audit Log Settings** window. You may need to enter them again when an SVP is replaced.

Prerequisites

- You must have Audit Log Administrator (View & Modify) role to configure syslog server settings.
- Make sure the storage system is connected to syslog servers on a LAN.
- Make sure the syslog servers are configured so as to transfer audit logs to the syslog servers.
- The syslog server certificate and the client certificate is required to use TLS1.2/RFC5424. See *Hitachi Command Suite User Guide* or *Hitachi Virtual Storage Platform G1000 System Administrator Guide* for details.

Caution: If audit logs are transferred before configuring the setting of a syslog server to which the audit logs are transferred, the logs are not saved on the syslog server and lost. See the user manual of the syslog server for the details of the syslog server setting.

To transfer audit log files:

1. Click **Settings > Security > Edit Audit Log Settings**. Select **Syslog** tab on the **Edit Audit Log Settings** window.
2. Select **New Syslog Protocol (TLS1.2/RFC5424)** or **Old Syslog Protocol (UDP/RFC3164)**.
3. Click **Enable** the Primary Server.
   a. Select **IPv4** or **IPv6** on **Server setting** and enter the IP address.
   b. Enter the Port Number in the primary server setting.
   c. Enter client certificate file name, password, and root certificate file name (only when you choose **New Syslog Protocol (TLS1.2/ RFC5424)** at **Transfer Protocol**).
4. Perform the following if using a secondary syslog server.

a. Click **Enable** the Secondary Server.
b. Select **IPv4** or **IPv6** on **Server setting** and enter the IP address.
c. Enter the Port Number in the secondary server setting.
d. Enter client certificate file name, password, and root certificate file name (only when you chose **New Syslog Protocol (TLS1.2/ RFC5424)** at **Transfer Protocol**).

5. Enter the name of the storage system from which you are transferring the audit log file in **Location Identification Name**.
6. If selected **New Syslog Protocol (TLS1.2/RFC5424)** for **Transfer Protocol**, specify **Timeout**, **Retry Interval**, and **Number of Retries**.
7. If you want to transfer the detailed information of audit log to the syslog server, click **Enable** for **Output Detailed Information**.
8. Click **Send Test Message to Syslog Server** to test the settings.
9. Check that the test log (function name AuditLog, operation name Send Test Message) has been sent to the syslog server.
10. Click **Finish**.
11. Confirm the settings from the setting confirmation window, and then enter the task name on **Task Name**.
12. Click **Apply**. The task is registered. If you check the **Go to tasks window for status** check box, the **Task** window is displayed.
13. Confirm that the syslog server is receiving the log of syslog server setting when the task has completed. The function name of the log is "AuditLog" and the operation name is "Set Syslog Server".

If the audit log is not received by the syslog server, check whether the set IP address and port number matches the IP address and port number of the syslog server, and make sure that the Client Certificate File Name, password, and the Root Certificate File Name are correct. If the settings are correct, check the syslog server setting. See the user manual of the syslog server for the details of the syslog server setting.

Related topics

- Edit Audit Log Settings wizard on page C-3

3

Quick reference

This topic provides a quick reference to what each log indicates.

- Audit Log Functions
- Device Manager - Storage Navigator and SVP operation
- Encryption Key operation
- Command sent from the host
- PIN Deletion Tool operation
- Audit log reproduced output
- Audit log lost output

Audit Log Functions

The following table lists the functions used in audit logging and provides their meanings.

Table 3-1 Function Names

Function name	Description
ACM	Audit log functions used for account management
AuditLog	Audit log functions used during audit logging
BASE	Audit log functions used during initial setup
CPAV	Audit log functions used during Compatible PAV operations
E-MAIL	Audit log functions used during E-Mail notification operations
Information	Audit log functions used during log related operations on SVP
Install	Audit log functions used during software or firmware installation
Local Replications	Audit Log functions used during local replication operations
Maintenance	Audit log functions used during general maintenance
Monitor	Audit log functions used to monitor process
PFM	Audit log functions used to monitor performance
PP KEY	Audit log functions used to install or enable a license key
PROV	Audit log functions used to provision the system
Remote Maintenance	Audit log functions used for Remote Maintenance application
Remote Replications	Audit log functions used during remote replication operations
SNMP	Audit log functions used during SNMP Agent operations
SPM	Audit log functions used during Server Priority Manager operations
Spreadsheet	Audit log functions used during External API operations
UVM	Audit log functions used during Universal Volume Manager operations
VM	Audit log functions used during Volume Migration operations
VPM	Audit log functions used during Virtual Partition Manager operations
VS	Audit log functions used during volume shredding operations
XRC	Audit log functions used to configure XRC

Device Manager - Storage Navigator and SVP operation

The storage system logs operations performed from Device Manager - Storage Navigator computer or SVP. The following table lists the function/operation names as well as GUI operations that trigger logging. Functions are listed in alphabetical order.

Table 3-2 Audit Log and Device Manager - Storage Navigator/SVP Operations

Function Name	Operation Name	Corresponding GUI Operation
AuditLog	Send Test Message	Sending the test log to the syslog server in the Edit Audit Log Settings window
AuditLog	Set FTP Server	Changing settings in the Edit Audit Log Settings window
AuditLog	Set Syslog Server	Changing settings in the Edit Audit Log Settings window
AuditLog	SIM Complete	SIM complete in the Edit Audit Log Settings window
ACM	Add Users	Adding a user account to a user group
ACM	Assign Resource Grps	Changing the resource group allocation of a user group
ACM	Assign Roles	Changing the role allocation of a user group
ACM	Change Password	Changing a password
ACM	Create User	Creating a new user account
ACM	Create User Grp	Creating a new user group
ACM	Delete User Grps	Deleting a user group
ACM	Delete Users	Deleting a user account
ACM	Edit User	Changing settings of a user account
ACM	Edit User Grp	Changing the name of a user group
ACM	Remove Users	Removing a user from a user group
ACM	Set Login Message	Setting login message
ACM	Setup Server	Setting a server for the View External Authentication Server Properties
BASE	Advanced Settings	Editing advanced system settings
BASE	Certificate Update	Changing settings in the Update Certificate Files window
BASE	Control Panel Backup	Backing up the configuration files using Control Panel
BASE	Control Panel Restore	Restoring the configuration files using Control Panel
BASE	Create Conf Report	Creating a configuration report
BASE	Delete CVAE Info	Changing information from Command Suite
BASE	Delete Reports	Deleting a configuration report
BASE	Delete Tasks	Deleting a task
BASE	Disable Auto Delete	Disabling Task Auto Delete function
BASE	Edit Alert Setting	Setting a destination of the alert
BASE	Edit High TEMP Mode	Settings of High Temperature Mode
BASE	Edit SIM Syslog Serv	Settings of SIM Syslog notification
BASE	Edit Storage System	Editing storage system information
BASE	Enable Auto Delete	Enabling Task Auto Delete function

Function Name	Operation Name	Corresponding GUI Operation
BASE	Entry Tasks	Applying a task to the storage system
BASE	Environment Setting	Changing parameters on Control Panel
BASE	HCSSO Authentication	Launching Device Manager - Storage Navigator from Hitachi Command Suite
BASE	HCSSO SetOneTimeKey	Issuing OneTimeKey from Hitachi Command Suite
BASE	Login	Log in to Device Manager - Storage Navigator or SVP
BASE	Logout	Log out from Device Manager - Storage Navigator or SVP
BASE	Release HTTP Block	Changing settings on the Release HTTP Blocking window
BASE	Resume Tasks	Resuming a task
BASE	Set CVAE Info	Changing information from Hitachi Command Suite
BASE	Set Up HTTP Block	Changing settings on the Set Up HTTP Blocking window
BASE	Suspend Tasks	Suspending a task
BASE	Unlock Forcibly	Cancelling lock forcibly
BASE	Update HCS Crt	Registering or deleting a certificate for Hitachi Command Suite
BASE	Update SMIS CrtFiles	Updating a digital certificate for SMI-S
BASE	Upload SMIS ConfFile	Uploading a configuration file for SMI-S
CPAV	Add Alias Delete Alias	Compatible PAV
E-Mail	MailAddress Write Valid Flag Update	Settings of E-Mail notification
Information	Delete Log ORM Value SIM Complete SIM Reporting Option Threshold Value	Log-related operation on Service Processor (SVP)
Install	Add Host Group	Maintenance on SVP
Install	Add LU Path	Maintenance on SVP
Install	Add WWN	Maintenance on SVP
Install	All Config	Maintenance on SVP
Install	Backup Config	Maintenance on SVP
Install	Change Host Group	Maintenance on SVP
Install	Change WWN	Maintenance on SVP
Install	DCR Prestaging	Maintenance on SVP
Install	Define Config.	Maintenance on SVP

Function Name	Operation Name	Corresponding GUI Operation
Install	Delete DKC WWN	Maintenance on SVP
Install	Delete Host Group	Maintenance on SVP
Install	Delete LU Path	Maintenance on SVP
Install	Delete WWN	Maintenance on SVP
Install	Dku Emulation	Maintenance on SVP
Install	FlashDrive ORM Value	Maintenance on SVP
Install	Force Reset	Maintenance on SVP
Install	Format	Maintenance on SVP
Install	Format Stop	Maintenance on SVP
Install	Initialize ORM Value	Maintenance on SVP
Install	Install	Maintenance on SVP
Install	Install CV	Maintenance on SVP
Install	M/F DCR	Maintenance on SVP
Install	Machine Install Date	Maintenance on SVP
Install	Make Volume	Maintenance on SVP
Install	Micro Program	Maintenance on SVP
Install	MP Install	Maintenance on SVP
Install	Open DCR	Maintenance on SVP
Install	Remove	Maintenance on SVP
Install	Restore Config.	Maintenance on SVP
Install	Set Battery Life	Maintenance on SVP
Install	Set Channel Speed	Maintenance on SVP
Install	Set CommandDev	Maintenance on SVP
Install	Set CommandDevSec	Maintenance on SVP
Install	Set DevGrpDef	Maintenance on SVP
Install	Set Fibre Address	Maintenance on SVP
Install	Set Fibre Topology	Maintenance on SVP
Install	Set Host Mode	Maintenance on SVP
Install	Set IP Address	Maintenance on SVP
Install	Set Security Switch	Maintenance on SVP
Install	Set Subsystem Time	Maintenance on SVP
Install	Set UserAuth	Maintenance on SVP
Install	System Option	Maintenance on SVP

Function Name	Operation Name	Corresponding GUI Operation
Install	System Tuning	Maintenance on SVP
Install	Update Config	Maintenance on SVP
Install	Volume to Space	Maintenance on SVP
Local Replication	Assign S-VOLs	Assigning secondary volumes of Thin Image pairs
Local Replication	Create Pairs	Creating pairs for ShadowImage, ShadowImage for Mainframe, or Thin Image
Local Replication	Delete Pairs	Deleting pairs for ShadowImage, ShadowImage for Mainframe, or Thin Image
Local Replication	Edit Options	Editing options for ShadowImage or ShadowImage for Mainframe
Local Replication	Initialize	Initializing pairs for ShadowImage and ShadowImage for Mainframe
Local Replication	Release Reserved CTG	Releasing reserved consistency groups for ShadowImage for Mainframe
Local Replication	Remove S-VOLs	Removing secondary volumes of Thin Image pairs
Local Replication	Reserve CTG	Reserving consistency groups for ShadowImage for Mainframe
Local Replication	Resync Pairs	Resynchronizing pairs for ShadowImage, ShadowImage for Mainframe, or Thin Image
Local Replication	Split Pairs	Splitting pairs for ShadowImage, ShadowImage for Mainframe, or Thin Image
Local Replication	Suspend Pairs	Suspending pairs for ShadowImage or ShadowImage for Mainframe
Maintenance	Blockade	Maintenance on SVP
Maintenance	Correction Copy	Maintenance on SVP
Maintenance	DMA Restore	Maintenance on SVP
Maintenance	Drive Interrupt	Maintenance on SVP
Maintenance	DRR Restore	Maintenance on SVP
Maintenance	Format	Maintenance on SVP
Maintenance	Format Stop	Maintenance on SVP
Maintenance	MP Restore	Maintenance on SVP
Maintenance	PCB Restore	Maintenance on SVP
Maintenance	Pre QuickFormat Stop	Maintenance on SVP
Maintenance	Quick Format	Maintenance on SVP
Maintenance	Replace	Maintenance on SVP
Maintenance	Restore	Maintenance on SVP

Function Name	Operation Name	Corresponding GUI Operation
Maintenance	Restore Data	Maintenance on SVP
Maintenance	Set Battery Life	Maintenance on SVP
Maintenance	Size Change	Maintenance on SVP
Maintenance	Spare Disk	Maintenance on SVP
Maintenance	Switch SVP	Maintenance on SVP
Maintenance	Transfer Config	Maintenance on SVP
Maintenance	Type Change	Maintenance on SVP
Maintenance	Verify	Maintenance on SVP
Maintenance	Verify Stop	Maintenance on SVP
Monitor	Threshold	Maintenance on SVP
PFM	DCR Prestaging	• Cache Residency Manager • Cache Residency Manager for Mainframe
PFM	Delete M/F DCR	Cache Residency Manager for Mainframe
PFM	Delete Open DCR	Cache Residency Manager
PFM	Delete Unused WWNs	Performance Monitor
PFM	Edit CU Monitor Mode	Performance Monitor
PFM	Edit Monitoring SW	Performance Monitor
PFM	Edit WWN	Performance Monitor
PFM	Edit WWN MonitorMode	Performance Monitor
PFM	Set M/F DCR	Cache Residency Manager for Mainframe
PFM	Set Open DCR	Cache Residency Manager
PP KEY	PP Apply PP Disable chk PP Enable chk PP Install chk PP Install File chk Update License	License Key
PROV	Add Hosts	• Adding the specified host to a host group • Adding a host to the specified host group
PROV	Add LUN Paths	• Mapping an LU path • Creating an alternate LUN path • Copying the selected LUN path
PROV	Assign MP Blade	Assigning an MP blade
PROV	Block LDEVs	Blocking LDEVs
PROV	Complete SIMs	Completing SIMs related to a pool

Function Name	Operation Name	Corresponding GUI Operation
PROV	Create Host Groups	Creating a host group
PROV	Create LDEVs	• Creating a basic volume • Creating an external volume • Creating a virtual volume for Dynamic Provisioning
PROV	Create Resource Grps	Creating a resource group
PROV	Create VDKC-Box	Creating a VDKC-Box from Hitachi Command Suite
PROV	Create/Expand Pools	• Creating a pool • Increasing pool capacity
PROV	CreateAlus	Creating an LDEV with the ALU attribute
PROV	CreateSlus	Creating an LDEV with the SLU attribute from Hitachi Command Suite
PROV	CreateTiVolumes	Creating a secondary volume for Thin Image from Hitachi Command Suite
PROV	Delete Host Groups	Deleting a host group
PROV	Delete LDEVs	• Deleting a basic volume • Deleting an external volume • Deleting a virtual volume for Dynamic Provisioning
PROV	Delete Login WWNs	Deleting an unnecessary WWN
PROV	Delete LUN Paths	Removing a LUN path from an LDEV
PROV	Delete Resource Grps	Deleting a resource group
PROV	Delete VDKC-Box	Deleting a VDKC-Box from Hitachi Command Suite
PROV	DeleteAlus	Deleting an LDEV with the ALU attribute
PROV	DeleteSlus	Deleting an LDEV with the SLU attribute from Hitachi Command Suite
PROV	DeleteTiVolumes	Deleting a secondary volume for Thin Image from Hitachi Command Suite
PROV	DRU Expiration Lock	Data Retention Utility
PROV	Edit Cmd Dev(Auth)	Editing the user authentication setting for a command device
PROV	Edit Cmd Dev(DevGrp)	Editing the device group setting for a command device
PROV	Edit Cmd Dev(Sec)	Editing the command device security setting
PROV	Edit Command Devices	Enabling or disabling the command device setting
PROV	Edit DRU Attribute	Data Retention Utility
PROV	Edit Full Allocation	Enabling or disabling the Full Allocation setting
PROV	Edit Host	Editing host settings
PROV	Edit Host Grps(Mode)	Editing host group settings

Function Name	Operation Name	Corresponding GUI Operation
PROV	Edit Host Grps(Name)	Editing host group settings
PROV	Edit LDEVs(tier)	Relocating tier
PROV	Edit LDEV Tier Rank	Editing the external LDEV tier ranks of pool volumes assigned to a pool
PROV	Edit MP Blades	Editing the MP blade setting
PROV	Edit Ports(Address)	Editing a port address
PROV	Edit Ports(Attr)	Changing a port attribute with TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, Universal Volume Manager.
PROV	Edit Ports(Security)	Editing LUN security setting for a port
PROV	Edit Ports(Speed)	Editing the data transfer speed of a port
PROV	Edit Ports(Topology)	Editing the topology setting of a port
PROV	Edit Resource Grp	Editing a resource group
PROV	Edit SCP Time	Setting a SCP (State Change Pending) time to the mainframe host
PROV	Edit Tiering Policy	Editing the tiering policy
PROV	Edit VR Attribute	Volume Retention Manager
PROV	Edit V-VOL Option	• Creating an LDEV • Changing information of an LDEV
PROV	Edit/Delete Pools	• Deleting a pool • Editing pool settings
PROV	Edit/Delete UUIDs	• Editing an UUID • Deleting an UUID
PROV	ExecBindingOperation	Binding or unbinding an LDEV with the SLU attribute to or from the LDEV with the ALU attribute
PROV	Expand V-VOLs	Increasing virtual volume capacity
PROV	ExpandSlus	Increasing capacity of an LDEV with the SLU attribute from Hitachi Command Suite
PROV	Force Del MF V-VOLs	Forcibly deleting a V-Vol for Dynamic Provisioning for Mainframe or Dynamic Tiering for Mainframe
PROV	Format LDEVs	Formatting an LDEV
PROV	Format LDEVs(H)	Formatting a LDEV using the Write to Control Blocks function
PROV	Format LDEVs(Q)	Quick formatting an LDEV
PROV	Initialize Pools	Initializing a pool
PROV	LDEV Name	• Setting an LDEV name • Editing an LDEV

Function Name	Operation Name	Corresponding GUI Operation
PROV	Monitor Pools	Starting the performance monitoring of a pool
PROV	Move Resources	• Adding a resource to a resource group • Removing a resource from a resource group
PROV	Pool Name	• Setting a pool name • Deleting a pool name
PROV	Reclaim Zero Pages	Releasing pages in a virtual volume
PROV	Release HostReserved	Releasing Host-Reserved LUNs
PROV	Relocate Pool	Starting the tier relocation of a pool
PROV	Remove Hosts	Removing a host from a host group
PROV	Restore LDEVs	Restoring an LDEV
PROV	Restore Pools	Restoring a pool
PROV	Set FCSP Host	Creating, changing, or deleting the host authentication information
PROV	Set FCSP Port Info	• Setting port information • Setting default such as user name and secret
PROV	Set FCSP Port Switch	Registering authentication information Authentication Mode: bi-directional -> unidirectional or unidirectional -> bi-directional Authentication (Port): Enable -> Disable or Disable -> Enable
PROV	Set FCSP Target	Registering or deleting authentication information Authentication (Host Group): Disable -> Enable or Enable -> Disable
PROV	Set PageTieringLevel	Setting a tiering policy in pages
PROV	Set SSID	• Creating an LDEV • Setting an SSID
PROV	Set Virtual LDEV	Setting a virtual LDEV from Hitachi Command Suite
PROV	Shrink Pool	Decreasing pool capacity
PROV	Stop Monitoring	Stopping the performance monitoring of a pool
PROV	Stop Reclm ZeroPages	Stop releasing pages in a virtual volume
PROV	Stop Relocating	Stopping the tier relocation of a pool
PROV	Stop Shrinking Pool	Stop decreasing pool capacity
PROV	VTOC	Volume Retention Manager
Remote Maintenance	PS Control Reboot MP Reboot Port Reboot SVP	Hi-track

Function Name	Operation Name	Corresponding GUI Operation
	Switch SVP Transfer Config	
Remote Replication	Add Path	Adding paths for TrueCopy, TrueCopy for Mainframe, Universal Replicator, and Universal Replicator for Mainframe on the remote storage system.
Remote Replication	Add Quorum Disk ID	Adding quorum disk IDs used by global-active device.
Remote Replication	Add RCU	Adding remote storage system settings for TrueCopy, TrueCopy for Mainframe, Universal Replicator, and Universal Replicator for Mainframe.
Remote Replication	Change JNL Option	Changing the journal option for Universal Replicator and Universal Replicator for Mainframe.
Remote Replication	Change Mirror Option	Changing the mirror option for Universal Replicator and Universal Replicator for Mainframe.
Remote Replication	Change RCU Option	Changing the remote storage system option for TrueCopy, TrueCopy for Mainframe, Universal Replicator, and Universal Replicator for Mainframe.
Remote Replication	Clear SIM	Clearing SIMs for TrueCopy for Mainframe, Universal Replicator for Mainframe, and global-active device.
Remote Replication	Create Pairs	Creating pairs for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, and global-active device.
Remote Replication	Delete Cmd.Dev	Deleting a command device for TrueCopy for Mainframe.
Remote Replication	Delete Pairs	Deleting pairs for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, and global-active device.
Remote Replication	Delete Path	Deleting paths for TrueCopy, TrueCopy for Mainframe, Universal Replicator, and Universal Replicator for Mainframe on the remote storage system.
Remote Replication	Del Quorum Disk ID	Deleting quorum disk IDs used by global-active device.
Remote Replication	Delete RCU	Deleting the remote storage system setting for TrueCopy, TrueCopy for Mainframe, Universal Replicator, and Universal Replicator for Mainframe.
Remote Replication	Edit Options	Setting the remote replica options for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, and global-active device.
Remote Replication	Edit Pair Options	Setting pair options for TrueCopy, TrueCopy for Mainframe, Universal Replicator, and Universal Replicator for Mainframe.
Remote Replication	Journal Owner	Setting the journal ownership for Universal Replicator and Universal Replicator for Mainframe.

Function Name	Operation Name	Corresponding GUI Operation
Remote Replication	Journal Vol	Creating or deleting of journal or assigning journal volumes for Universal Replicator and Universal Replicator for Mainframe.
Remote Replication	R-Cmd.Dev.	Setting a remote command device for Universal Replicator and Universal Replicator for Mainframe.
Remote Replication	Resync Pairs	Resynchronizing pairs for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, and global-active device.
Remote Replication	Split Pairs	Split pairs for TrueCopy, TrueCopy for Mainframe, Universal Replicator, and Universal Replicator for Mainframe.
Remote Replication	Suspend Pairs	Suspending pairs for global-active device.
SNMP	Edit SNMP Agent	Setting information related to SNMP
SPM	Change SPMGrp Clear SPM Info Default Set Set All Prio Port Set All Prio WWN Set Ctrl Kind Set Prio Port Set Prio WWN SPMGrp Del/Chg Update Port WWN Update SPMGrp Update WWN	Server Priority Manager
Spreadsheet	CflSet End CflSet Start	Performing the CFLSET command using External API
UVM	Add External Volumes	Mapping an external volume
UVM	Assign MP Blade	Assigning an MP blade for an external volume
UVM	Delete ES VOLs	Releasing external volume mapping
UVM	Disconnect ES Paths	Disconnecting an external path
UVM	Disconnect ES VOLs	Disconnecting an external storage system or an external volume
UVM	Edit ES Path Config	• Adding a path to an external path group • Deleting a path from an external path group • Changing priority among external paths
UVM	Edit ES VOLs	Editing external volume settings
UVM	Edit External WWNs	Editing external WWN parameters
UVM	Merge ES Path Grps	Merging external path groups using External API

Function Name	Operation Name	Corresponding GUI Operation
UVM	ProfileUpgrade	Operable by tool only
UVM	Reconnect ES Paths	Reconnecting an external path
UVM	Reconnect ES VOLs	Reconnecting an external storage system or external volume
UVM	Split ES Path Grp	Splitting external path group using External API
VM	Delete All Histories Del Migration Plans Migrate Volumes	Volume Migration
VPM	Edit CLPR	Creating, adding, deleting, or editing CLPR Migrating parity groups to a different CLPR
VS	Abort Shredding	Aborting shredding an LDEV
VS	End Shredding	Ending shredding an LDEV
VS	Shred LDEVs	Shredding an LDEV
XRC	Set XRC Option	Compatible XRC

Encryption Key operation

The following tables show the function names, operation names and event names of encryption keys for data encryption and each item is listed in alphabetical order. The logs for the operation names listed in the first table are output to Auditlog information file 1, while the logs for the event names listed in the second table are output to Auditlog information file 2.

Table 3-3 Function Name and Operation Name Output to Auditlog information file 1

Function Name	Operation Name	Corresponding GUI Operation
ENC	Add keys to DKC	Creating encryption keys Configuring encryption environment settings
	Backup Keys	Backing up encryption keys on the key management server or backing up encryption keys as a file on the Device Manager - Storage Navigator PC
	Backup Keys to File	Backing up encryption keys as a file on the Device Manager - Storage Navigator PC
	Backup Keys to Serv	Backing up encryption keys on the key management server
	Create KEK Dynamic	Configuring encryption environment settings Updating key encryption keys
	Create Keys	Creating encryption keys Configuring encryption environment settings
	Create Keys On Serv	Creating encryption keys

Function Name	Operation Name	Corresponding GUI Operation
		Backing up encryption keys on the key management server Configuring encryption environment settings
	Delete KEK Dynamic	Configuring encryption environment settings Updating key encryption keys
	Delete Keys	Deleting encryption keys
	Delete Keys on Serv	Deleting encryption keys backed up on the key management server
	DEK assign SpareDisk	Configuring encryption environment settings
	DEK delete	Configuring encryption environment settings
	Edit Encryption	Enabling/disabling the encryption in a parity group level
	Edit ENC Settings	Configuring encryption environment settings
	Edit Password Policy	Editing password policies for backing up encryption keys
	Register KEK Dynamic	Configuring encryption environment settings Updating key encryption keys
	Rekey CEK	Configuring encryption environment settings Updating certificate encryption keys
	Rekey KEK Dynamic	Updating key encryption keys
	Restore Keys	Restoring encryption keys from back up copies on the key management server or the Device Manager - Storage Navigator PC
	Restore Keys fr File	Restoring encryption keys from back up copies on the Device Manager - Storage Navigator PC
	Restore Keys fr Serv	Restoring encryption keys from back up copies on the key management server
	Retry KEK Dynamic	Reacquisition of key encryption keys
	Set Up Key Mng Serv	Configuring encryption environment settings
KEK Acquisition	Acquisition Key	Reacquisition of key encryption keys
	Set Key	

Table 3-4 Function Name and Event Name Output to Auditlog information file 2

Function Name	Event Name	Output Trigger
ENC	Change CEK Status	• When the encryption environment setting is configured from the initial setting. • When the certificate encryption key is updated. • When the encryption disk adapter is deleted or replaced.
	Change DEK Status	• When the encryption environment setting is configured from the initial setting. • When the encryption environment setting is initialized.

Function Name	Event Name	Output Trigger
		• When the data encryption is enabled/disabled. • When Dynamic sparing, Correction copy or Copy back is performed. • When the drive (Hard disk drive, SSD or FMD) is added, deleted or replaced after the encryption environmental setting is configured.
	Clear Keys	When the encryption environment setting is initialized.
	Create Keys	When the encryption key is created.
	Delete Keys	When the encryption key is deleted.
	Use Keys for CEK/KEK	• When the encryption environment setting is configured from the initial setting. • When the certificate encryption key is updated. • When the encryption disk adapter is added or replaced.

Command sent from the host

The following table describes the function name output to the audit log file when receiving commands from the host.

Table 3-5 Audit Log and Command Sent from Host

Function Name	Description
Config Command	Indicates that a configuration command was received.
FC-SP	Indicates that the FC-SP authentication is completed.
User Auth	Indicates that a user authentication command was received.

PIN Deletion Tool operation

The following table shows the function name and the operation name concerning the PIN Deletion Tool.

Table 3-6 Audit Log and PIN Deletion Tool Operation

Function Name	Operation Name	Corresponding GUI Operation
PINDeletion	Delete	PIN deletion operation by PIN deletion tool

Audit log reproduced output

The following table describes the operation name, event name, and triggering events that are output when the audit log file is reproduced. The "create file" event name will be automatically output only once.

Table 3-7 Audit Log File Output

Function Name	Event Name	Output Trigger
AuditLog	Create File	Output when abnormal files in the audit log are reproduced automatically.

Audit log lost output

The following shows the function name and the event name that are output when the audit log by the commands that the storage system accepted from the host has been lost. The "DKCAuditLog was lost" event name will be automatically output only once for each output trigger.

Table 3-8 Audit Log Lost Output

Function Name	Event Name	Output Trigger
AuditLog	DKCAuditLog was lost	Output when the audit log by the commands that the storage system accepted from the host has been lost.

4

Audit log examples

This topic provides examples and descriptions of the audit logs produced by each function and operation that can be performed with Device Manager - Storage Navigator and SVP. The descriptions are listed alphabetically by function name and operation name. For detailed information on the version numbers in log output examples, see Table 1-3 Format changes for each version number on page 1-10.

- Audit Log Descriptions
- ACM Descriptions
- BASE Descriptions
- Compatible PAV Descriptions
- E-Mail Descriptions
- Information Descriptions
- Install Descriptions
- Local Replication Descriptions
- Maintenance Descriptions
- Monitor Descriptions
- Performance Monitor Descriptions
- Program Product Key (PP KEY) Descriptions
- Provisioning Descriptions

- Remote Maintenance Descriptions
- Remote Replication Descriptions
- SNMP Descriptions
- Server Priority Manager Descriptions
- Spreadsheet Descriptions
- Universal Volume Manager Descriptions
- Volume Migration Descriptions
- Virtual Partition Manager Descriptions
- Volume Shredder Descriptions
- Compatible XRC Descriptions

Audit Log Descriptions

[AuditLog] Create File

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,<system>,,,
[AuditLog],Create File,SVP,Warning,,,Seq.=xxxxxxxxxx
```

Basic Information

Parameter	Description
SVP	Indicates that the audit log file 1 has been reproduced
DKC	Indicates that the audit log file 2 has been reproduced

[AuditLog] DKCAuditLog was lost

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,<system>,,,
[AuditLog],DKCAuditLog was lost,,Error,,,Seq.=xxxxxxxxxx
```

[AuditLog] Over MaxLine

This information appears in the syslog file only.

Example: RFC3164

```
<14> Jan  4 06:25:18 SVP Storage: CELFSS,1.1,250001,,
2006-01-04T06:25:18.3Z,
Storage,SVP,AnomalyEvent,Success,<system>,R800:65307,,
Japan-Tokyo,,,,,,,,,,,SVP,,,[AuditLog],Over MaxLine,SVP,
Normal end
```

Example: RFC5424

```
<14>1 2006-01-04T06:25:18.3Z SVP Storage - - - CELFSS,1.1,
250001,AnomalyEvent,Success,<system>,R800:65307,
Japan-Tokyo,,,,,SVP,,,[AuditLog],Over MaxLine,SVP,Normal end
```

Basic Information

Parameter	Description
SVP	Indicates that the capacity of audit log file 1 has reached the maximum
DKC	Indicates that the capacity of audit log file 2 has reached the maximum

[AuditLog] Over Threshold

This information appears in the syslog file only.

Example: RFC3164

```
<14> Jan  4 06:25:18 SVP Storage: CELFSS,1.1,250001,,
2006-01-04T06:25:18.3Z,
Storage,SVP,AnomalyEvent,Success,<system>,R800:65307,,
Japan-Tokyo,,,,,,,,,,,SVP,,,[AuditLog],Over Threshold,
SVP,Normal end
```

Example: RFC5424

```
<14>1 2006-01-04T06:25:18.3Z SVP Storage - - - CELFSS,1.1,
250001,AnomalyEvent,Success,<system>,R800:65307,
Japan-Tokyo,,,,,SVP,,,[AuditLog],Over Threshold,SVP,Normal end
```

Basic Information

Parameter	Description
SVP	Indicates that the capacity of audit log file 1 has exceeded the threshold value
DKC	Indicates that the capacity of audit log file 2 has exceeded the threshold value

[AuditLog] Send Test Message

This information appears in the syslog server only.

Example: RFC3164

```
<14> Jun 20 12:28:51 SVP Storage: CELFSS,1.1,,,
2013-06-20T12:28:51.2+09:00,Storage,SVP,
ConfigurationAccess,Success,uid=maintenance,R800:65307,,
Japan-Tokyo,,,,,,,,,,,SVP,108,,[AuditLog],Send Test Message,,
Normal end
```

Example: RFC5424

```
<14>1 2013-06-20T12:27:18.3+09:00 SVP Storage - - - CELFSS,
1.1,,ConfigurationAccess,Success,uid=maintenance,R800:65307,
Japan-Tokyo,,,,,SVP,108,,[AuditLog],Send Test Message,,
Normal end
```

[AuditLog] Set FTP Server

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[AuditLog],Set FTP Server,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{ServerType,IPAddrVer,OutFlg,SrvAddr,UserName,OutputDir}
=[{Primary,IPv4,Disable,192.168.0.1,root,/Data/AuditLog},
```

```
{Secondary,IPv6,Enable,3ffe:0501:4819:2000:5254:00ff:fedc:50d2,
-,-}]
```

Detailed Information

No detailed information is output when no setting is changed.

Item	Description
ServerType	The server type of the FTP server to be set. If the setting is not changed, a hyphen (-) is displayed. Primary: Primary FTP server. Secondary: Secondary FTP server.
IPAddrVer	The version number of the internet protocol. If the setting is not changed, a hyphen (-) is displayed. IPv6: Internet Protocol Version 6, IPv4: Internet Protocol Version 4
OutFlg	Whether to transfer the audit log file (audit.log) to the FTP server. Enable: Transfer audit log file. Disable: Do not transfer audit log file.
SrvAddr	The IP address to which the audit log file is sent. If the setting has not changed, a hyphen (-) is displayed.
UserName	The user name to login to the FTP server. If the setting has not changed, a hyphen (-) is displayed.
OutputDir	The directory in the FTP server that the transferred audit log files are stored. If the setting is not changed, a hyphen (-) is displayed.

[AuditLog] Set Syslog Server

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[AuditLog],Set Syslog Server,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Transfer Protocol=TLS1.2
+Location Identification Name=ABCDEFG
+Output Detailed Information=Enable
+Timeout=10
+Retry Interval=1
+Number of Retries=3
+{Server Type,Output,IP Version,IP Address,Port Number,
Client Certificate File Name,Root Certificate File Name}
=[{Primary,Enable,IPv4,xxx.xxx.xxx.xxx,yyy,FILE1,FILE2},
{Secondary,Disable,,,,,}],Num. of Servers=2
```

Detailed Information

No detailed information is output when no setting is changed.

Item	Description
Transfer Protocol	Indicates the syslog transfer protocol. It is not output if the setting is not changed. TLS1.2: New Syslog Protocol (TLS1.2/RFC5424)

Item	Description
	UDP: Old Syslog Protocol (UDP/RFC3164)
Location Identification Name	Indicates the location identification information of the storage system. It is not output if the setting is not changed.
Output Detailed Information	Indicates whether to output the detailed information of the audit log to the syslog server. It is not output if the setting is not changed. Enable: Detailed information is output Disable: Detailed information is not output
Timeout	Indicates the time to detect the timeout of communication with the syslog server. It is not output if the setting is not changed.
Retry Interval	Indicates the retry interval when the communication with the syslog server fails. It is not output if the setting is not changed.
Number of Retries	Indicates the number of retries when the communication with the syslog server fails. It is not output if the setting is not changed.
Server Type	Indicates the syslog server that transfers syslog information. It is not output if the setting is not changed. Primary: Primary syslog server Secondary: Secondary syslog server
Output	Indicates whether to transfer the syslog information to the syslog server. It is not output if the setting is not changed. Enable: Syslog information is transferred Disable: Syslog information is not transferred
IP Version	Indicates the internet protocol version. It is not output if the setting is not changed. IPv6: Internet Protocol Version 6 IPv4: Internet Protocol Version 4
IP Address	Indicate the IP address of the syslog server. It is not output if the setting is not changed.
Port Number	Indicates the port number of the LAN while transferring syslog information. It is not output if the setting is not changed.
Client Certificate File Name	Indicates the client certificate file name. It is not output if the file is not uploaded.
Root Certificate File Name	Indicates the CA certificate file name. It is not output if the file is not uploaded.
Num. of Servers	Indicates the number of the servers that are set. It is not output if there are no servers that are set.

[AuditLog] SIM Complete

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[AuditLog],SIM Complete,,Normal end,
```

```
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Reference Code=[0x7C0300],Num. of Reference Codes=1
```

Detailed Information

Item	Description
Reference Code	The reference code of the SIM whose errors are solved or the SIM that the causes of its generation are removed.
Num. of Reference Codes	The number of the reference codes of the SIM whose errors are solved or the SIM that the causes of its generation are removed.

ACM Descriptions

[ACM] Add Users

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx,+00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Add Users,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Name,User Group Name,Result}
=[{User01,Group01,Normal end},{User02,Group01,Normal end}],
Num. of Users=2
```

Detailed Information

Item	Description
User Name	The user name that was added to a user group
User Group Name	The name of the user group to which the user ID was added
Result	Result of the operation Normal end: normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: part code, *yyyyyy*: error code
Num. of Users	The number of users that were added

[ACM] Assign Resource Grps

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Assign Resource Grps,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Group Name,Result}={Group01,Normal end},
Num. of User Groups=1
++{Resource Group ID,Result}=[{1,Normal end},{2,Normal end}],
Num. of Resource Groups=2
```

Detailed Information

Item	Description
User Group Name	The name of a user group
Result	Result of the operation Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of User Groups	The number of user groups
Resource Group ID	The resource group ID allocated to the user group Not the difference but all the resource group numbers are output, which are allocated to the target user group after the operation.
Num. of Resource Groups	The number of resource groups

As a result of the operations, when all the allocation of resource groups are released from the target user group, "++{Resource Group ID,Result}" and later in the detailed information are not output.

[ACM] Assign Roles

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Assign Roles,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Group Name,All Resource Groups Assigned,Result}
={Group01,Yes,Normal end},Num. of User Groups=1
++{Role Name,Result}=[{Role01,Normal end},{Role02,Normal end}],
Num. of Roles=2
```

Detailed Information

Item	Description
User Group Name	The name of a user group
All Resource Groups Assigned	Indicates whether there is All Resource Groups Assigned setting in the user group
Result	Result of the operation Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of User Groups	The number of user groups
Role Name	The role name allocated to the user group Not the difference but all the role names are output, which are allocated to the target user group after the operation.
Num. of Roles	The number of roles

[ACM] Change Password

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx,+00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Change Password,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Name,Result}=[{User01,Normal end}],Num. of Users=1
```

Detailed Information

Item	Description
User Name	The name of the user whose password was changed.
Result	Result of the operation Normal end: normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: part code, *yyyyyy*: error code
Num. of Users	The number of users whose passwords were changed.

[ACM] Create User

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx,+00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Create User,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Name,Account Status,Authentication,User Group Name,Result}
=[{User01,Enabled,Local,Group01,Normal end}],Num. of Users=1
```

Detailed Information

Item	Description
User Name	The user name that was created
Account Status	Indicates whether the user account is enabled or disabled. Enabled: the account is enabled, Disabled: the account is disabled
Authentication	The authentication server that the user uses Local: SVP authentication, External: External authentication
User Group Name	The name of the user group to which the user ID was added
Result	Result of the operation Normal end: normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: part code, *yyyyyy*: error code
Num. of Users	The number of users that were created

[ACM] Create User Grp

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Create User Grp,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Group Name,All Resource Groups Assigned,Result}
={Group01,Yes,Normal end},Num. of User Groups=1
```

Detailed Information

Item	Description
User Group Name	The name of a user group name that was created
All Resource Groups Assigned	Indicates whether there is All Resource Groups Assigned setting in the created user group
Result	Result of the operation Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of User Groups	The number of created user groups

[ACM] Delete User Grps

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Delete User Grps,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Group Name,Result}=[{Group01,Normal end},
{Group02,Normal end}],Num. of User Groups=2
```

Detailed Information

Item	Description
User Group Name	The user group name
Result	Result of the operation Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of User Groups	The number of user groups

[ACM] Delete Users

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx,+00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Delete Users,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Name,Result}=[{User01,Normal end},{User02,Normal end}],
Num. of Users=2
```

Detailed Information

Item	Description
User Name	The user name that was deleted
Result	Result of the operation Normal end: normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: part code, *yyyyyy*: error code
Num. of Users	The number of users that were deleted

[ACM] Edit User

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx,+00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Edit User,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Name,Account Status,Authentication,Result}
=[{User01,Enabled,Local,Normal end}],Num. of Users=1
```

Detailed Information

Item	Description
User Name	The user name that was edited
Account Status	Indicates whether the user account is enabled or disabled. A hyphen (-) appears if the setting is not changed. Enabled: the account is enabled, Disabled: the account is disabled.
Authentication	The authentication server that the user uses A hyphen (-) appears if the setting is not changed. Local: SVP authentication, External: External authentication
Result	Result of the operation Normal end: normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: part code, *yyyyyy*: error code
Num. of Users	The number of users that were edited

[ACM] Edit User Grp

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Edit User Grp,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Group Name,New User Group Name,Result}
={Group01,New Group01,Normal end},Num. of User Groups=1
```

Detailed Information

Item	Description
User Group Name	The user group name
New User Group Name	The user group name that was newly set
Result	Result of the operation Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of User Groups	The number of user groups

[ACM] Remove Users

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx,+00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Remove Users,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{User Name,User Group Name,Result}
=[{User01,Group01,Normal end},{User02,Group01,Normal end}],
Num. of Users=2
```

Detailed Information

Item	Description
User Name	The user name that was removed from a user group
User Group Name	The name of the user group from which the user was removed
Result	Result of the operation Normal end: normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: part code, *yyyyyy*: error code
Num. of Users	The number of users that were removed

[ACM] Set Login Message

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[ACM],Set Login Message,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LoginMessageSentence=Login Message
```

Detailed Information

Item	Description
LoginMessageSentence	Indicates the sentence displayed on the login window of Device Manager - Storage Navigator

[ACM] Setup Server

Example 1

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Setup Server,Disable,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

Basic Information for Example 1

Parameter	Description
Disable	Indicates that the External Authentication server is not used

Example 2

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Setup Server,LDAP,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Certificate File Name,DNS Lookup,Authentication Protocol,
External User Group Mapping,Primary Host Name,
Primary Port Number,Domain Name,User Name Attribute,Base DN,
Search User's DN,Timeout,Retry Interval,Number of Retries}=
-{CFFILE,Disable,STARTTLS,Enable,
-examplehost,389,example1.com,sAMAccountName,
-dc=example2 dc=com,example3.com,10,1,3}
++{Secondary Server,Secondary Host Name,Secondary Port Number}=
{Enable,example4.com,389}
+Num. of Servers=1
```

Basic Information for Example 2

Parameter	Description
LDAP	Indicates that the LDAP server is used as the External Authentication server

Detailed Information for Example 2

Item	Description
Certificate File Name	Indicates the name of certificate file
DNS Lookup	Indicates whether to search the LDAP server using the information registered in the SRV records in the DNS server Enable: Performs the search using information registered in the SRV records in the DNS server Disable: Performs the search using the host name and the port number
Authentication Protocol	Indicates the LDAP protocol (LDAP over SSL/TLS or STARTTLS) to use
External User Group Mapping	Indicates whether to connect an authentication server to an authorization server Enable: Connects an authentication server to an authorization server Disable: Does not connect an authentication server to an authorization server
Primary Host Name	Indicates the host name of the LDAP server
Primary Port Number	Indicates the port number of the LDAP server
Domain Name	Indicates the domain name that the LDAP server manages
User Name Attribute	Indicates the attribute name to identify a user
Base DN	Indicates the Base DN (Distinguished Name) for searching for users to authenticate Commas that are input by user are indicated with spaces
Search User's DN	Indicates the DN of the user for searching
Timeout	Indicates the number of seconds before connection to the LDAP server times out
Retry Interval	Indicates the retry interval in seconds when the connection to the LDAP server fails
Number of Retries	Indicates the retry times when the connection to the LDAP server fails
Secondary Server	Indicates whether to use a secondary LDAP server Enable: Use the secondary server Disable: Do not use the secondary server
Secondary Host Name	Indicates the host name of the secondary LDAP server
Secondary Port Number	Indicates the port number of the secondary LDAP server
Num. of Servers	The number of external authentication servers that are set

Example 3

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Setup Server,RADIUS,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Authentication Protocol,Primary Host Name,NAS Address,
Primary Port Number,Timeout,Number of Retries,Secondary Server,
Secondary Host Name,Secondary Port Number}=
-{PAP,example1.com,
-10.213.74.20,1812,10,3,Enable,example2.com,1812}
++{External User Group Mapping,Certificate File Name,
Authentication Protocol,DNS Lookup,Host Name,Port Number,
Domain Name,Base DN,Search User's DN,Timeout,Retry Interval,
Number of Retries}=
-{Enable,CFFILE,STARTTLS,Disable,
-example.com,389,example1.com,
-dc=example2 dc=com,example3.com,10,1,3}
+Num. of Servers=1
```

Basic Information for Example 3

Parameter	Description
RADIUS	Indicates that the RADIUS server is used as the External Authentication server.

Detailed Information for Example 3

Item	Description
Authentication Protocol	Indicates the RADIUS protocol to use PAP: password authentication protocol that transmits plaintext user ID and password CHAP: challenge-handshake authentication protocol that transmits encrypted password
Primary Host Name	Indicates the host name of the RADIUS server
NAS Address	Indicates the identifier for the RADIUS server to find SVP
Primary Port Number	Indicates the port number of the RADIUS server
Timeout	Indicates the number of seconds before connection to the RADIUS server times out
Number of Retries	Indicates the number of times that the system tries to reconnect to the server when the connection to the RADIUS server fails
Secondary Server	Indicates whether to use a secondary RADIUS server or a secondary LDAP server Enable: Use the secondary server Disable: Do not use the secondary server
Secondary Host Name	Indicates the host name of the secondary RADIUS server

Item	Description
Secondary Port Number	Indicates the port number of the secondary RADIUS server
External User Group Mapping	Indicates whether to connect an authentication server to an authorization server Enable: Connects an authentication server to an authorization server Disable: Does not connect an authentication server to an authorization server
Certificate File Name	Indicates the name of certificate file
Authentication Protocol	Indicates the LDAP protocol to use
DNS Lookup	Indicates whether to search for the LDAP server using the information registered in the SRV records in the DNS server Enable: Performs the search using information registered in the SRV records in the DNS server Disable: Performs the search using the host name and the port number
Host Name	Indicates the host name of the LDAP server
Port Number	Indicates the port number of the LDAP server
Domain Name	Indicates the domain name that the LDAP server manages
Base DN	Indicates the Base DN for searching for users to authenticate Commas that are input by user are indicated with spaces
Search User's DN	Indicates the DN of the user for searching
Timeout	Indicates the number of seconds before the connection to the LDAP server times out
Retry Interval	Indicates the retry interval in seconds when the connection to the LDAP server fails
Number of Retries	Indicates the retry times when the connection to the LDAP server fails
Num. of Servers	The number of external authentication servers that are set

Example 4

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ACM],Setup Server,Kerberos,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{DNS Lookup,Realm Name,Primary Host Name,Primary Port Number,
Clock Skew,Timeout,Secondary Server,Secondary Host Name,
Secondary Port Number}=
-{Disable,example1.com,example2.com,88,300,10,Enable,example3.com,
88}
++{External User Group Mapping,Certificate File Name,
Authentication Protocol,Primary Port Number,Base DN,
Search User's DN,Timeout,Retry Interval,Number of Retries,
Secondary Sever,Secondary Port Number}
=-{Enable,CFFILE,STARTTLS,389,-dc=example4 dc=com,example5.com,
```

```
10,1,20,Enable,389}
+Num. of Servers=1
```

Basic Information for Example 4

Parameter	Description
Kerberos	Indicates that the Kerberos server is used as the External Authentication server.

Detailed Information for Example 4

Item	Description
DNS Lookup	Displays whether to search for the Kerberos server using the information registered in the SRV records in the DNS server Enable: Performs the search using information registered in the SRV records in the DNS server Disable: Performs the search using the host name and the port number
Realm Name	Indicates the default realm name
Primary Host Name	Indicates the host name of the Kerberos server
Primary Port Number	Indicates the port number of the Kerberos server
Clock Skew	Indicates the acceptable range of time difference between the SVP and the Kerberos server
Timeout	Indicates the number of seconds before connection to the Kerberos server times out
Secondary Server	Indicates whether to use a secondary Kerberos server Enable: Use the secondary server Disable: Do not use the secondary server
Secondary Host Name	Indicates the host name of the secondary Kerberos server
Secondary Port Number	Indicates the port number of the secondary Kerberos server
External User Group Mapping	Indicates whether to connect an authentication server to an authorization server Enable: Connects an authentication server to an authorization server Disable: Does not connect an authentication server to an authorization server
Certificate File Name	Indicates the name of certificate file
Authentication Protocol	Indicates the LDAP protocol to use
Primary Port Number	Indicates the port number of the LDAP server

Item	Description
Base DN	Indicates the Base DN for searching for users to authenticate Commas that are input by user are indicated with spaces
Search User's DN	Indicates the DN of the user for searching
Timeout	Indicates the number of seconds before connection to the LDAP server times out
Retry Interval	Indicates the retry interval in seconds when the connection to the LDAP server fails
Number of Retries	Indicates the retry times when the connection to the LDAP server fails
Secondary Server	Indicates whether to use a secondary LDAP server Enable: Use the secondary server Disable: Do not use the secondary server
Secondary Port Number	Indicates the port number of the secondary LDAP server
Num. of Servers	The number of external authentication servers that are set

BASE Descriptions

[BASE] Advanced Settings

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Advanced Settings,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Option, Option Bit}
=[{Advanced System Setting, F000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000}],
Num. of Modes=1024
```

Detailed Information

Item	Description
Option	Indicates the specified option Advanced System Setting: Advanced system setting of Device Manager - Storage Navigator
Option Bit	Indicates the specified option in hexadecimal.
Num. of Modes	The number of modes

[BASE] Certificate Update

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],Certificate Update,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{File Name,Result}=[{server.crt,Normal end},
{server.key,Error(xxxx-yyyy)}]
```

Detailed Information

Item	Description
File Name	Name of the uploaded file
Result	Result of the upload operation Normal end: normal end, Error(*xxxx-yyyy*): Abnormal end *xxxx*: part code, *yyyy*: error code

[BASE] ControlPanel Backup

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],ControlPanel Backup,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{File Name,Result}
=[{User Account Information,Normal end},
{Environment Parameter List,Normal end},
{Log Transfer Information,Normal end},{External Authentication,-},
{External Application Link,-},{HiCommand Setting,-},
{Key Management Server,Normal end},{Password Policy,Normal end}]
```

Detailed Information

Item	Description
File Name	Name of the backup file
Result	Result of the backup operation Normal end: normal end, Error(*xxxx-yyyy*): Abnormal end, -: not selected *xxxx*: part code, *yyyy*: error code

[BASE] ControlPanel Restore

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],ControlPanel Restore,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{File Name,Result}
```

```
=[{User Account Information,Normal end},
{Environment Parameter List,Normal end},
{Log Transfer Information,Normal end},{External Authentication,-},
{External Application Link,-},{HiCommand Setting,-},
{Key Management Server,Normal end},{Password Policy,Normal end}]
```

Detailed Information

Item	Description
File Name	Name of the restore file
Result	Result of the restore operation Normal end: normal end, Error(*xxxx-yyyy*): Abnormal end, -: not selected *xxxx*: part code, *yyyy*: error code

[BASE] Create Conf Report

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Create Conf Report,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
++{ReportName,UserName,FolderName,StartTime}
={XXXXXXX,manager,YYYYYYYYYY,YYYYMMDDHHMMSS}
```

Detailed Information

Item	Description
ReportName	Name of the created configuration report
UserName	Name of the user who created the configuration report
FolderName	Folder name where the configuration report is output
StartTime	Starting date and time of the configuration report creation

[BASE] Delete CVAE Info

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Delete CVAE Info,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{ID}={0,1,2,3},Num. of IDs=4
```

Detailed Information

Item	Description
ID	ID (unique ID row by row) of the version information that was deleted

Item	Description
Num. of IDs	The number of IDs

[BASE] Delete Reports

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Delete Reports,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{FolderName,Result}=[{XXXXXXXXX,Normal end},
{XXXXXXXXX,Normal end},{XXXXXXXXX,Normal end},
-{XXXXXXXXX,Normal end}],Num. of Reports=4
```

Detailed Information

Item	Description
FolderName	Folder name of the deleted configuration report.
Result	Result of the operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: part code, *yyyyy*: error code
Num. of Reports	The number of deleted configuration reports

[BASE] Delete Tasks

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Delete Tasks,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Task Name,Type,User Name,Submission Time,Result}
=[{20100101-EditStorageSystem,Edit Storage System,User01,
YYYY/MM/DD HH:MM:SS,Normal end},{20100101-CreateLdev,
Create LDEV,User02,YYYY/MM/DD HH:MM:SS,Normal end}],
Num. of Tasks=2
```

Detailed Information

Item	Description
Task Name	Name of the deleted task
Type	Type of the task
User Name	The user ID who deleted the task
Submission Time	Time when the task was registered
Result	Result of the operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end

Item	Description
	xxxx: part code, *yyyyy*: error code
Num. of Tasks	The number of deleted tasks

[BASE] Disable Auto Delete

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Disable Auto Delete,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Task Name,Type,User Name,Submission Time,Result}
=[{20100101-EditStorageSystem,Edit Storage System,User01,
YYYY/MM/DD HH:MM:SS,Normal end},{20100101-CreateLdev,
Create LDEV,User02,YYYY/MM/DD HH:MM:SS,Normal end}],
Num. of Tasks=2
```

Detailed Information

Item	Description
Task Name	The task name that the disable auto delete operation was performed
Type	Type of the task
User Name	ID of the user who performed the operation
Submission Time	Time when the task was registered
Result	Result of the operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end: *xxxx*: part code, *yyyyy*: error code
Num. of Tasks	Number of the target tasks.

[BASE] Edit Alert Setting

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Edit Alert Setting,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Notification Alert=Host Report
```

Detailed Information

Item	Description
Notification Alert	Indicates the type of notification Host Report: SIMs with host reports, all: All SIMs

[BASE] Edit High TEMP Mode

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Edit High TEMP Mode,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+High Temperature Mode=Enable
```

Detailed Information

Item	Description
High Temperature Mode	The temperature environment setting of the storage system Enable: High Temperature Mode is enabled Disable: High Temperature Mode is disabled

[BASE] Edit SIM Syslog Serv

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Edit SIM Syslog Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Transfer Protocol=TLS1.2
+Location Identification Name=ABCDEFGHIJK
+Timeout=10
+Retry Interval=1
+Number of Retries=3
+{Server Type,SIM Transfer,IP Version,IP Address,Port Number,
Client Certificate File Name,Root Certificate File Name}
=[{Primary,Enable,IPv4,xxx.xxx.xxx.xxx,yyy,FILE1,FILE2},
{Secondary,Disable,,,,,}],Num. of Servers=2
```

Detailed Information

Item	Description
Transfer Protocol	Indicates the syslog transfer protocol. TLS1.2: New Syslog Protocol (TLS1.2/RFC5424) UDP: Old Syslog Protocol (UDP/RFC3164)
Location Identification Name	Indicates the location identification information of the storage system.
Timeout	Indicates the time to detect the timeout of communication with the syslog server. It is not output if the syslog transfer protocol is UDP.
Retry Interval	Indicates the retry interval when the communication with the syslog server fails. It is not output if the syslog transfer protocol is UDP.
Number of Retries	Indicates the number of retries when the communication with the syslog server fails. It is not output if the syslog transfer protocol is UDP.

Item	Description
Server Type	Indicates the syslog server that notifies SIMs by syslog. Primary: Primary syslog server Secondary: Secondary syslog server
SIM Transfer	Whether to notify SIMs by syslog. Enable: SIMs are notified by syslog Disable: SIMs are not notified by syslog
IP Version	Indicates the internet protocol version. It is not output if SIMs are not notified by syslog. IPv6: Internet Protocol Version 6 IPv4: Internet Protocol Version 4
IP Address	Indicate the IP address of the syslog server. It is not output if SIMs are not notified by syslog.
Port Number	Indicates the port number of the LAN while notifying SIMs by syslog. It is not output if SIMs are not notified by syslog.
Client Certificate File Name	Indicates the client certificate file name. It is not output if the file is not uploaded.
Root Certificate File Name	Indicates the CA certificate file name. It is not output if the file is not uploaded.
Num. of Servers	Indicates the number of the servers that are set.

[BASE] Edit Storage System

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Edit Storage System,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Name,Contact,Location}=[{XXXXX,XXXXX,XXXXX}],
Num. of SystemInfos=1
```

Detailed Information

Item	Description
Name	Name of the storage system
Contact	Administrator of the storage system
Location	Location of the storage system
Num. of SystemInfos	Number of the edited storage systems

[BASE] Enable Auto Delete

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Enable Auto Delete,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Task Name,Type,User Name,Submission Time,Result}
=[{20100101-EditStorageSystem,Edit Storage System,User01,
YYYY/MM/DD HH:MM:SS,Normal end},{20100101-CreateLdev,
Create LDEV,User02,YYYY/MM/DD HH:MM:SS,Normal end}],
Num. of Tasks=2
```

Detailed Information

Item	Description
Task Name	The task name that the enable auto delete operation was performed.
Type	The type of task
User Name	ID of the user who performed the operation
Submission Time	Time when the task was registered
Result	Result of the operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: part code, *yyyyy*: error code
Num. of Tasks	Number of the target tasks

[BASE] Entry Tasks

This log is output when each task on the Device Manager - Storage Navigator menu is performed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[BASE],Entry Tasks,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Action Name}=[{xxxxxxx},{xxxxxxx},{xxxxxxx},{xxxxxxx},
{xxxxxxx}],Num. of Actions=5
```

Detailed Information

Item	Description
Action Name	The name of the performed action
Num. of Actions	The number of performed actions

[BASE] Environment Setting

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],Environment Setting,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{RMI time-out period,RMI time-out period for Modify,
Polling period for checking exclusive lock,
Polling period for checking obstacles}={1,10,5,5}
```

Detailed Information

Item	Description
RMI time-out period	RMI time-out period
RMI time-out period for Modify	RMI time-out period for Modify
Polling period for checking exclusive lock	The polling period for checking exclusive lock
Polling period for checking obstacles	The polling period for checking obstacle statuses

[BASE] HCSSO Authentication

Example 1: When SSO authentication is succeeded

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],HCSSO Authentication,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

* "0" is always output in the connection number.

Example 2: When SSO authentication failed

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],HCSSO Authentication,,Error(xxxxx-yyyyyy),
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

* "0" is always output in the connection number.

[BASE] HCSSO SetOneTimeKey

Example 1: When authentication failed in issuance of OneTimeKey

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],HCSSO SetOneTimeKey,Authentication,Error(xxxxx-yyyyyy),
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

* "0" is always output in the connection number.

Example 2: When the number of registered OneTimeKeys exceeds the maximum

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],HCSSO SetOneTimeKey,OneTimeKey EntryOver,
Error(xxxxx-yyyyyy),from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,
Seq.=xxxxxxxxxx
```

* "0" is always output in the connection number.

Basic Information

Parameter	Description
Authentication	The authentication failed in the issuance of OneTimeKey.
OneTimeKey EntryOver	The number of OneTimeKeys exceeded the maximum.

[BASE] Login

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Login,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[BASE] Logout

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Logout,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[BASE] Release HTTP Block

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],Release HTTP Block,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{HTTP Block,Result}={-,Normal end}
```

Detailed Information

Item	Description
HTTP Block	Status of the HTTP Block. -: disabled, Blocked: enabled
Result	Result of the HTTP Block setting Normal end: normal end, Error(*xxxx-yyyy*)

Item	Description
	Abnormal end *xxxx*: part code, *yyyy*: error code

[BASE] Resume Tasks

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Resume Tasks,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Task Name,Type,User Name,Submission Time,Result}
=[{20100101-EditStorageSystem,Edit Storage System,User01,
YYYY/MM/DD HH:MM:SS,Normal end},{20100101-CreateLdev,
Create LDEV,User02,YYYY/MM/DD HH:MM:SS,Normal end}],
Num. of Tasks=2
```

Detailed Information

Item	Description
Task Name	Name of the resumed task
Type	The type of task
User Name	The ID of the user who resumed the task
Submission Time	Time when the task was registered
Result	Result of the operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: part code, *yyyyy*: error code
Num. of Tasks	The number of target tasks

[BASE] Set CVAE Info

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Set CVAE Info,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{ID,ProductName,VersionInfo,IPAddress,RegistryDate,
LastAccessDate,MemoRandom}
={1,DevMgr,6.0.0.-00,10.213.38.210,
01/23/2008 12:34:56,01/24/2008 16:54:02,MEMO SPACE},
Num. of CVAEInfos=1
+{LicenseInfo}={Core license,Full license,Expired},
Num. of LicenseInfos=3
```

Detailed Information

Item	Description
ID	ID (unique ID row by row) of the version information that was deleted
ProductName	Product name (Hitachi Command Suite)
VersionInfo	Version Information
IPAddress	Network address information (IPv4, IPv6, and network name)
RegistryDate	Time stamp of initial registration
LastAccessDate	Time stamp of the final access
MemoRandom	Memo space information
Num. of CVAEInfos	The number of Hitachi Command Suite messages
LicenseInfo	License information
Num. of LicenseInfos	The number of license messages

[BASE] Set Up HTTP Block

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],Set Up HTTP Block,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{HTTP Block,Result}={Blocked,Normal end}
```

Detailed Information

item	Description
HTTP Block	Status of the HTTP Block -: disabled, Blocked: enabled
Result	Result of the HTTP Block setting Normal end: normal end, Error(*xxxx-yyyy*): Abnormal end *xxxx*: part code, *yyyy*: error code

[BASE] Suspend Tasks

Example

```
08xx,YYYY/MM/DD,HH:MM.SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Suspend Tasks,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Task Name,Type,User Name,Submission Time,Result}
=[{20100101-EditStorageSystem,Edit Storage System,User01,
YYYY/MM/DD HH:MM:SS,Normal end},{20100101-CreateLdev,
```

```
Create LDEV,User02,YYYY/MM/DD HH:MM:SS,Normal end}],
Num. of Tasks=2
```

Detailed Information

Item	Description
Task Name	Name of the suspended task
Type	The type of task
User Name	Name of the user who suspended the task
Submission Time	Time when the task was registered.
Result	Result of the operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: part code, *yyyyy*: error code
Num. of Tasks	Number of the target tasks

[BASE] Unlock Forcibly

Example

```
08xx,YYYY/MM/DD,HH:MM.SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[BASE],Unlock Forcibly,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[BASE] Update HCS Crt

Example

```
08xx,YYYY/MM/DD,HH:MM.SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],Update HCS Crt,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Mode=Set
```

Detailed Information

Item	Description
Mode	The type of the operation Delete: Deletion of the certificate for Hitachi Command Suite Set: Registration of the certificate for Hitachi Command Suite

[BASE] Update SMIS CrtFiles

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],Update SMIS CrtFiles,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+{File Name,Result}=[{server.crt,Normal end},
{server.key,Normal end}]
```

Detailed Information

Item	Description
File Name	Name of a digital certificate file for SMI-S to be modified
Result	Result of the operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: part code, *yyyyy*: error code

[BASE] Upload SMIS ConfFile

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,0,,
[BASE],Upload SMIS ConfFile,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{File Name,Result}=[{array-setting-01.properties,Normal end}]
```

Detailed Information

Item	Description
File Name	Name of the uploaded file
Result	Result of the upload operation Normal end: normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: part code, *yyyyy*: error code

Compatible PAV Descriptions

[CPAV] Add Alias

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[CPAV],Add Alias,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC=0x00,CU=0x00
++{Alias LDEV,Base LDEV}=[{0xFD,0x00},{0xFE,0x00},{0xFF,0x01}],
Num. of Alias LDEVs=3
+LDKC=0x00,CU=0x01
++{Alias LDEV,Base LDEV}=[{0xFF,0x00}],Num. of Alias LDEVs=1
+Num. of Alias LDEVs=4
```

Detailed Information

Item	Description
LDKC	Indicates LDKC number containing the alias device and the base device
CU	Indicates CU number containing the alias device and the base device
Alias LDEV	The alias device number allocated to the CU number indicated in CU of the index
Base LDEV	The base device number allocated to the CU number indicated in CU of the index
Num. of Alias LDEVs	The number of alias devices allocated to the CU number indicated in CU of the index
Num. of Alias LDEVs	The number of alias devices allocated to all CU numbers indicated in CU of the index

[CPAV] Delete Alias

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[CPAV],Delete Alias,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC=0x00,CU=0x00
++{Alias LDEV,Base LDEV}=[{0xFD,0x00},{0xFE,0x00},{0xFF,0x01}],
Num. of Alias LDEVs=3
+LDKC=0x00,CU=0x01
++{Alias LDEV,Base LDEV}=[{0xFF,0x00}],Num. of Alias LDEVs=1
+Num. of Alias LDEVs=4
```

Detailed Information

Item	Description
LDKC	Indicates LDKC number containing the alias device and the base device
CU	Indicates CU number containing the alias device and the base device
Alias LDEV	The alias device number allocated to the CU number indicated in CU of the index
Base LDEV	The base device number allocated to the CU number indicated in CU of the index
Num. of Alias LDEVs	The number of alias devices allocated to the CU number indicated in CU of the index
Num. of Alias LDEVs	The number of alias devices allocated to all CU numbers indicated in CU of the index

E-Mail Descriptions

[E-Mail] MailAddress Write

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[E-Mail],MailAddress Write,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{MailServerSetting,MailServer}={HostName,smtp.test.co.jp}
+{SMTP AUTH,Account}={Enable,Account}
+{FromAddress,ReturnAddress}={TransAddr@co.jp,ReplyAddr@co.jp}
+UsedCount=32
++{ToAddressList,Attribute}=[{usr1@co.jp,TO},{usr2@co.jp,TO},
{usr3@co.jp,TO},{usr4@co.jp,CC},   [snip] {usr25@co.jp,CC},
{usr26@co.jp,BCC},{usr27@co.jp,BCC},{-,-},{-,-},
{usr31@co.jp,BCC}],Num. of Accounts=32
```

Detailed Information

Item	Description
MailServerSetting	The specification type of the server HostName: Host name, IP Address: IP address (IPv4 or IPv6)
MailServer	The SMTP server domain name or IP address. If IP address is specified, the address divided by periods means IPv4 address and the address divided by colons means IPv6 address.
SMTP AUTH	Indicates whether the SMTP authentication is enabled or disabled. Disable or Enable will appear.
Account	SMTP server account
FromAddress	Mail source address
ReturnAddress	Return mail address. If you want to receive the reply to another mail address, you can specify the desired address by using ReturnAddress.
UsedCount	The number of mail addresses that have been registered as a destination
ToAddressList	Mail addresses of a destination. Thirty-two addresses are always displayed. If a mail address is not specified, {-,-} is displayed instead of mail address and attribute.
Attribute	Attributes (TO, CC, or BCC) of the destination mail addresses
Num. of Accounts	The number of displayed destination mail addresses. The displayed mail addresses may not have an account setting.

[E-Mail] Valid Flag Update

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[E-Mail],Valid Flag Update,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+MailNoticeSetting=Enable
```

Detailed Information

Item	Description
MailNoticeSetting	Indicates whether the mail notice is enabled or disabled. Disable or Enable will appear.

Information Descriptions

[Information] Delete Log

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],Delete Log,SIM,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

Basic Information

Parameter	Description
SIM	Record of a deleted SIM log
SSB	Record of a deleted SSB log
Reset	Record of a deleted Reset log
Power Event	Record of a deleted Power Event log
Detail	Record of a deleted Detail log
Incident	Record of a deleted Incident log
HTP	Record of a deleted HTP log
Diagnosis	Record of a deleted Diagnosis log
Copy History	Record of a deleted Copy History log

[Information] ORM Value

Example 1: changing the threshold of SAS

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],ORM Value,Alter,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+Type=7days
+{Read Err.(Unrecovered),Read Err.(Recovered),
Seek Err.(Recovered),Seek Err.(Unrecovered),Not Ready,
Other Errors}={15,1.00e-008,100,10,10,10}
++PDEV=[HDD000-01,HDD000-02],Num. of PDEVs=2
```

Example 2: changing the threshold of the flash drive

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],ORM Value,Alter,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Type=Total
+{Total Defect Count}={15}
++PDEV=[HDD000-01,HDD000-02],Num. of PDEVs=2
```

Example 3: changing the threshold of the SSD when drive type is SLRxx-MxxxSS

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],ORM Value,Alter,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Type=Total
+{Total Defect Count,Used Endurance Indicator}={160000,(99,90)}
++PDEV=[HDD000-03],Num. of PDEVs=1
```

Example 4: changing the threshold of the FMD

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],ORM Value,Alter,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Type=Today
+{Total Defect Count,Reboot Error,DMA Error,Memory Error,
Uncorrected Error,Used Endurance Indicator,Battery Error,
FMD Battery Life Indicator}={0,2,10,500,512,(0,0),1,0}
++PDEV=[HDD000-03],Num. of PDEVs=1
```

Example 5: Error Reset

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],ORM Value,Error Reset,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PDEV=HDD000-01
```

Basic Information

Parameter	Description
Alter	Change the threshold of ORM (Online Read Margin)
Error Reset	Indicates Error Reset

Detailed Information

Item	Description
Type	The period of time to acquire the result of threshold diagnosis using the read diagnosis function

Item	Description
	Today: Current day only, 7days: 7 days, Total: Every operating days
Read Err. (Unrecovered)	The threshold of the Read Error (Unrecovered)
Read Err. (Recovered)	The threshold of the Read Error (Recovered)
Seek Err. (Recovered)	The threshold of the Seek Error (Recovered)
Seek Err. (Unrecovered)	The threshold of the Seek Error (Unrecovered)
Not Ready	The threshold of the Not Ready status.
Other Errors	The threshold of Other Errors.
Total Defect Count	The threshold of the Total Defect Count
Used Endurance Indicator	The threshold of the Used Endurance Indicator
Reboot Error	The threshold of the Reboot Error
DMA Error	The threshold of the DMA Error
Memory Error	The threshold of the Memory Error
Uncorrected Error	The threshold of the Uncorrected Error
Battery Error	The threshold of the Battery Error
FMD Battery Life Indicator	The threshold of the FMD Battery Life Indicator
PDEV	The mounting location of the PDEV (physical device) that is the target of Alter or error reset
Num. of PDEVs	The number of PDEVs (physical devices)

[Information] SIM Complete

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],SIM Complete,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Reference Code=[XXXXXX,XXXXXX],Num. of Reference Codes=2
```

Detailed Information

Item	Description
Reference Code	The reference code of the SIM whose error and service request are resolved.
Num. of Reference Codes	The number of SIM reference codes whose error and service request are resolved.

[Information] SIM Reporting Option

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],SIM Reporting Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Type=DKC SIM
++{Acute,Serious,Moderate,Service}={ON,ON,ON,ON}
+Type=Cache SIM
++{Acute,Serious,Moderate,Service}={ON,ON,ON,ON}
+Type=Media SIM
++{Acute,Serious,Moderate,Service}={ON,ON,ON,ON}
+Type=Device SIM
++{Acute,Serious,Moderate,Service}={ON,ON,ON,ON}
+Num. of Types=4
```

Detailed Information

Item	Description
Type	The type of SIM. DKC SIM: SIM related to storage system, Cache SIM: SIM related to cache, Media SIM: SIM related to recording media Device SIM: SIM related to disk device
Acute	Report acute level information as a SIM. ON: Report, OFF: Do not report
Serious	Report serious level information as a SIM. ON: Report, OFF: Do not report
Moderate	Report moderate level information as a SIM. ON: Report, OFF: Do not report
Service	Report service level information as a SIM. ON: Report, OFF: Do not report
Num. of Types	The number of information levels to be reported as a SIM.

[Information] Threshold Value

Example 1

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],Threshold Value,Alter,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Type=7days
+{Mechanical error(Recovered,Unrecd.),Media error(Recovered,
Unrecd.),Read/Write error(Recovered,Unrecd.),
Drive I/F error(Recovered,Unrecd.),
Controller hardware error(Recovered,Unrecd.),
Drive response late,SAS I/F error Port 0(Unrecd.),
SAS I/F error Port 1(Unrecd.),Port 0 error(Unrecd.),
```

```
Port 1 error(Unrecd.)}
={(150,60),(0,15),(150,30),(150,6),(150,6),0,6,6,12,12}
++PDEV=[HDD000-01,HDD000-02],Num. of PDEVs=2
```

Example 2

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Information],Threshold Value,Error Reset,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PDEV=HDD000-01
```

Basic Information

Parameter	Description
Alter	Change the threshold of failed PDEV (physical device).
Error Reset	Indicates Error Reset.

Detailed Information

Item	Description
Type	The period of time to acquire the result of threshold diagnosis using the read diagnosis function. 7days: 7 days, Total: Every operating days
Mechanical error (Recovered, Unrecd.)	The threshold of the Mechanical error
Media error (Recovered, Unrecd.)	The threshold of the Media error
Read/Write error (Recovered, Unrecd.)	The threshold of the Read/Write error
Drive I/F error (Recovered, Unrecd.)	The threshold of the Drive I/F error
Controller hardware error (Recovered, Unrecd.)	The threshold of the Controller hardware error
Drive response late	The threshold of the Drive response late
SAS I/F error Port 0 (Unrecd.)	The threshold of the SAS I/F error Port 0
SAS I/F error Port 1 (Unrecd.)	The threshold of the SAS I/F error Port 1
Port 0 error (Unrecd.)	The threshold of the Port 0 error

Item	Description
Port 1 error (Unrecd.)	The threshold of the Port 1 error
PDEV	The mounting location of PDEV (physical device) that is the target of Alter or error reset
Num. of PDEVs	The number of PDEVs (physical devices)

Install Descriptions

[Install] Add Host Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Add Host Group,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,HostGrpName,Mode,Option[0:31],Option[32:63],
Option[64:95],Option[96:127]}=
{XX,0xXXX,XXXXXXXXXXXXXXX,0xXX,0xXXXXXXXX,
0xXXXXXXXX,0xXXXXXXXX,0xXXXXXXXX}
++{WWN,Nickname}=[{0xXXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX},
{0xXXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX}],Num. of WWNs=2
+{Port,HostGrpID,HostGrpName,Mode,Option[0:31],Option[32:63],
Option[64:95],Option[96:127]}=
{XX,0xXXX,XXXXXXXXXXXXXXX,0xXX,0xXXXXXXXX,
0xXXXXXXXX,0xXXXXXXXX,0xXXXXXXXX}
+Num. of Host Groups=2
```

Detailed Information

Item	Description
Port	The name of the port where the host group has been newly added.
HostGrpID	The newly added host group number
HostGrpName	The name of the newly added host group.
Mode	The newly added host mode. Please see the *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Open Systems* for the meaning of the host mode number.
Option[0:31] Option[32:63] Option[64:95] Option[96:127]	The newly added host mode option. Hexadecimal values are output.
WWN	Indicates WWN of the host bus adapter for the host registered in the host group.
Nickname	The nickname of the host bus adapter for the host registered in the host group.
Num. of WWNs	The number of WWNs of the host registered in the host group.

Item	Description
Num. of Host Groups	The number of added host groups.

[Install] Add LU Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Add LU Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,LUN,LDKC:CU:LDEV}=[{XX,0xXXX,XX,
0xXX:0xXX:0xXX},{XX,0xXXX,XX,0xXX:0xXX:0xXX},
{XX,0xXXX,XX,0xXX:0xXX:0xXX}],Num. of Paths=3
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs.
HostGrpID	The host group number linked to the logical volume.
LUN	Indicates the LUN of the logical volume linked to the host group.
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume linked to the host group.
Num. of Paths	The number of LU paths set.

[Install] Add WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Add WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,WWN,Nickname}
=[{XX,0xXXX,0xXXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX},
{XX,0xXXX,0xXXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX}],
Num. of WWNs=2
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs.
HostGrpID	The number of the host group where the host was registered.
WWN	Indicates WWN of the host bus adapter for the host registered in the host group. WWN is a 16-digit number in the hexadecimal format.

Item	Description
Nickname	The nickname of the host bus adapter for the host registered in the host group.
Num. of WWNs	The number of WWNs of the host registered in the host group.

[Install] All Config

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],All Config,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{New Ver.,Old Ver.}={xx-xx-xx/xx,xx-xx-xx/xx}
```

Detailed Information

Item	Description
New Ver.	The new version number.
Old Ver.	The old version number.

[Install] Backup Config

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Backup Config,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Ver.=xx-xx-xx/xx
```

Detailed Information

Item	Description
Ver.	The version number of the configuration information to be backed up.

[Install] Change Host Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Change Host Group,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,HostGrpName}
=[{XX,0xXXX,XXXXXXXXXXXXXXX},{XX,0xXXX,XXXXXXXXXXXXXXX}],
Num. of Host Groups=2
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs.
HostGrpID	The number of the host group where the host group name has been changed.
HostGrpName	The name of the host group. If the name is changed, the name after change is indicated.
Num. of Host Groups	The number of host groups where the settings have been changed.

[Install] Change WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Change WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,WWN,Change WWN,Change NickName}
=[{XX,0xXXX,0xXXXXXXXXXXXXXXXX,0xXXXXXXXXXXXXXXXX,
XXXXXXXXXXXXXXXX}],
Num. of WWNs=1
```

Detailed Information

Item	Description
Port	The name of the port where the host is connected.
HostGrpID	The host group number on which the host with WWN or nickname of the host bus adapter being changed is registered.
WWN	Indicates the WWN of the host bus adapter before the change.
Change WWN	Indicates the WWN of the host bus adapter after the change.
Change Nickname	The nickname of the host bus adapter after the change.
Num. of WWNs	The number of host bus adapters (WWN) where the settings have been changed.

[Install] DCR Prestaging

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],DCR Prestaging,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Install] Define Config.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Define Config.,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Install] Delete DKC WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Delete DKC WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Delete WWN}
=[{XX,0xXXXXXXXXXXXXXXXX},{XX,0xXXXXXXXXXXXXXXXX}],
Num. of WWNs=2
```

Detailed Information

Item	Description
Port	The port name where the host of deleted Login WWN was connected
Delete WWN	Indicates the deleted Login WWN. WWN is a 16-digit number in the hexadecimal format
Num. of WWNs	The number of deleted Login WWNs

[Install] Delete Host Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Delete Host Group,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID}=[{XX,0xXXX},{XX,0xXXX}],Num. of Host Groups=2
```

Detailed Information

Item	Description
Port	The name of the port to which the deleted or initialized host group belonged
HostGrpID	The host group number that was deleted or initialized
Num. of Host Groups	The number of host groups that was deleted or initialized

[Install] Delete LU Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Delete LU Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,LUN,LDKC:CU:LDEV}
=[{XX,0xXXX,XX,0xXX:0xXX:0xXX},{XX,0xXXX,XX,0xXX:0xXX:0xXX},
{XX,0xXXX,XX,0xXX:0xXX:0xXX}],
Num. of Paths=3
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs
HostGrpID	The host group number where the LU path is deleted
LUN	Indicates LUN where the LU path assignment is cancelled
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the volume where the LU path assignment is cancelled
Num. of Paths	The number of LU paths deleted

[Install] Delete WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Delete WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,WWN}
=[{XX,0xXXX,0xXXXXXXXXXXXXXXXX},
{XX,0xXXX,0xXXXXXXXXXXXXXXXX}],Num. of WWNs=2
```

Detailed Information

Item	Description
Port	The name of the port where the host deleted from host group was connected
HostGrpID	The host group number where the host is deleted
WWN	Indicates WWN of the host deleted from the host group
Num. of WWNs	The number of hosts (WWN) deleted from the host group

[Install] Dku Emulation

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Dku Emulation,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Type=3390-3A
++LDEV(LDKC:CU:LDEV)=[0x00:0x00:0x02,0x00:0x00:0x03],
Num. of LDEVs=2
+Type=3390-3B
++LDEV(LDKC:CU:LDEV)=[0x00:0x00:0x04,0x00:0x00:0x05],
Num. of LDEVs=2
+Num. of Emulation Types=2
```

Detailed Information

Item	Description
Type	The emulation type
LDEV(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers where the emulation type is changed
Num. of LDEVs	The number of logical volumes where the emulation type is changed
Num. of Emulation Types	The number of emulation types

[Install] FlashDrive ORM Value

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],FlashDrive ORM Value,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Flash Drive Collective setting,Dynamic Sparing,Warning SIM}
={Valid,99,95}
+{FMD Battery Collective setting,Warning SIM}={Valid,95}
```

Detailed Information

Item	Description
Flash Drive Collective Setting	Indicates whether the flash drive collective setting information is valid or invalid Valid: Valid, Invalid: Invalid
Dynamic Sparing	The Dynamic Sparing threshold of flash drive
Warning SIM	The warning SIM threshold of flash drive
FMD Battery Collective setting	Indicates whether the FMD battery collective setting information is valid or invalid Valid: Valid, Invalid: Invalid
Warning SIM	The warning SIM threshold of FMD battery

[Install] Force Reset

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Force Reset,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,LUN}
=[{3B,0x0FE,0},{3B,0x0FE,5},{3B,0x0FE,9}],
Num. of LUNs=3
```

Detailed Information

Item	Description
Port	The name of the port where the reserve attribute of the host is forcefully cancelled
HostGrpID	The host group number
LUN	Indicates the LUN of the volume linked to the host group
Num. of LUNs	The number of LUNs where the reserve attribute of the host is forcefully cancelled

[Install] Format

The logged information indicates that the Format operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Format,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Install] Format Stop

This log information is output when the format process is suspended.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Format Stop,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Install] Initialize ORM Value

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Initialize ORM Value,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Install] Install

Example 1: installing additional channel adapters

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Install,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{CHA,Kind}={CHA-1PD,16FC8(Fibre )},
++{Port,Initiator/Target,Channel Speed,CU Number}
=[{1C,Target,Auto,0x00:0x00-0x00:0xFE},
{3C,Target,Auto,0x00:0x00-0x00:0xFE},
{5C,Target,Auto,0x00:0x00-0x00:0xFE},
{7C,Target,Auto,0x00:0x00-0x00:0xFE},
{1D,Target,Auto,0x00:0x00-0x00:0xFE},
{3D,Target,Auto,0x00:0x00-0x00:0xFE},
{5D,Target,Auto,0x00:0x00-0x00:0xFE},
{7D,Target,Auto,0x00:0x00-0x00:0xFE}],
Num. of Ports=8
+{CHA,Kind}={CHA-1PE,16M8 (Mfibre)},
++{Port,HTP/FNP,CU Number,Emulation}
=[{1E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{3E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{5E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{7E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{1F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{3F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
```

```
{5F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{7F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3}],
Num. of Ports=8
+{CHA,Kind}={CHA-2PD,16FC8(Fibre )},
++{Port,Initiator/Target,Channel Speed,CU Number}
=[{2C,Target,Auto,0x00:0x00-0x00:0xFE},
{4C,Target,Auto,0x00:0x00-0x00:0xFE},
{6C,Target,Auto,0x00:0x00-0x00:0xFE},
{8C,Target,Auto,0x00:0x00-0x00:0xFE},
{2D,Target,Auto,0x00:0x00-0x00:0xFE},
{4D,Target,Auto,0x00:0x00-0x00:0xFE},
{6D,Target,Auto,0x00:0x00-0x00:0xFE},
{8D,Target,Auto,0x00:0x00-0x00:0xFE}],
Num. of Ports=8
+{CHA,Kind}={CHA-2PE,16M8 (Mfibre)},
++{Port,HTP/FNP,CU Number,Emulation}
=[{2E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{4E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{6E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{8E,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{2F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{4F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{6F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3},
{8F,HTP,0x00:0x00-0x00:0x3F,H-6591-C3}],
Num. of Ports=8
+Num. of CHAs=4
```

Detailed Information for Example 1

Item	Description
CHA	The channel adapter (CHA) mounting location
Kind	The kind of PCB mounted
Port	The mounting location of the port
Initiator/Target	The type of Initiator or Target is indicated. No output for a mainframe system.
Channel Speed	The channel speed is indicated. No output for a mainframe system. 2: 2 Gbps, 4: 4 Gbps, 8: 8 Gbps, 10: 10 Gbps, 16: 16 Gbps, Auto: Auto mode.
CU Number	Indicates the range of the CU number that the port belongs
HTP/FNP	The HTP or FNP is indicated for FICON. No output for an open system.
Emulation	The emulation type is indicated. No output for an open system.
Num. of Ports	The number of ports
Num. of CHAs	The number of Channel Adapter (CHA)s

Example 2: installing additional DKAs

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Install,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+{DKA,Kind}=[{DKA-1PB,DKA  (4Port)},{DKA-1PH,DKA  (4Port)},
{DKA-2PB,DKA  (4Port)},{DKA-2PH,DKA  (4Port)}],Num. of DKAs=4
```

Detailed Information for Example 2

Item	Description
DKA	The Disk Adapter mounting location
Kind	The type of Disk Adapter DKA (4Port): DKA, EDKA (4Port): Encryption DKA Note: In the actual log file, there are two spaces output between "DKA" and "(4Port)".
Num. of DKAs	The number of Disk Adapters
Note: Only the changed items are output.	

Example 3: installing additional ECC Groups or LDEVs

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Install,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{DKU,Kind}
=[{DKU-01,3.5" DKU},{DKU-02,FBX}],Num. of DKUs=2
+{PG,RAID Level,Drive Type,Emulation,Concatenation,Encryption}
={1-1,RAID5 (3D+1P),DKR5D-J900SS,OPEN-V,-,Disable},
++{LDKC:CU:LDEV,Emulation,Size,Unit,SSID,MPB}
=[{0x00:0x00:0x00,OPEN-V,5066268672,LBA,0x1111,MPB-1MA}],
Num. of LDEVs=1
+{PG,RAID Level,Drive Type,Emulation,Concatenation,Encryption}
={1-2,RAID5 (3D+1P),DKR5D-J900SS,OPEN-V,-,Disable},
++{LDKC:CU:LDEV,Emulation,Size,Unit,SSID,MPB}
=[{0x00:0x00:0x01,OPEN-V,5066268672,LBA,0x1111,Auto}],
Num. of LDEVs=1
+Num. of PGs=2
+{B4,SPARE,Drive Type}=[{1,1,DKR5D-J900SS}],Num. of SPAREs=1
```

Basic Information for Example 3

Parameter	Description
Progress Close	The window that shows the progress of LDEV formatting has closed.
Quick Format	Quick Format is selected.
Quick Format Close	The window that shows the progress of preparing for Quick Format has closed.
Note: No parameter is output for any case other than those described in this table.	

Detailed Information for Example 3

Only the changed items are output. The detailed information on the recovery process is not output when the setting at the time of installation before the recovery process is complete. However, when the setting is not complete, the setting on the recovery process is output as the detailed information.

Item	Description
DKU	The mounting location of Disk Unit
Kind	The type of DKU
Num. of DKUs	The number of Disk Units
PG	The parity group number
RAID Level	The RAID Level
Drive Type	The type of the drive
Emulation	The emulation type
Concatenation	The RAID concatenated parity group number. A hyphen (-) is indicated when the parity group is not RAID concatenated.
Encryption	The status of encryption Enable: Enabled, Disable: Disabled
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number
Size	The capacity of CV
Unit	The unit of the capacity of CV
SSID	The storage system ID
MPB	The ownership of the MPB
Num. of LDEVs	The number of LDEVs
Num. of PGs	The number of parity groups
B4	The B4 number
SPARE	The spare drive number
Num. of SPAREs	The number of spare drives

Example 4: installing additional cache memory

This logged information indicates until the formatting is requested (not until the formatting process is complete). However, if the operation does not request the formatting, it indicates the logged information after completing the volume creation.

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Install,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{CM,CMG,Size}
=[{1CA/2CA,CM16G x 2,65536},{1CB/2CB,CM16G x 2,65536},
{1CC/2CC,CM16G x 2,65536},{1CD/2CD,CM16G x 2,65536}],Num. of CMs=4
+{BKM,Type,Size}=[{1BA/2BA,BKML,BMM128 x 2(400GB)},
{1BB/2BB,BKML,BMM128 x 2(400GB)},{1BC/2BC,BKML,BMM128 x 2(400GB)},
{1BD/2BD,BKML,BMM128 x 2(400GB)}],Num. of BKMs=4
+DCR available size=2048
+{CLPR,Cache size,DCR size,Extent Number}
=[{CLPR0,217088,3072,15384},{CLPR1,8192,1024,1000}],
Num. of CLPRs=2
+PP Flag=[(64KLDEV, SI/VM Extension, TPF),(TC/UR/GAD)],
```

```
Num. of PP Flags=2
+Max Number of CUs=255
+{Battery,Date,Remained Life}=[{BATTERY-1BA,YYYY/MM/DD,990},
{BATTERY-2BC,YYYY/MM/DD,990}],Num. of Batteries=2
```

Detailed Information for Example 4

Item	Description
CM	The mounting location of the PCB for cache memory
CMG	The capacity of CMG
Size	The capacity of cache memory
Num. of CMs	The number of cache memory
BKM	The mounting location for BKM
Type	The type of BKM
Size	The size of CFM
Num. of BKMs	The number of BKMs
DCR available size	The capacity of Cache Residency
CLPR	The CLPR number
Cache size	The capacity of the cache memory allocated to CLPR
DCR size	The capacity of Cache Residency allocated to CLPR
Extent Number	The number of extents allocated to CLPR
Num. of CLPRs	The number of CLPRs
PP Flag	The flag of the program product
Num. of PP Flags	The number of flags of the program product
Max Number of CUs	The maximum number of CUs
Battery	The mounting location of the battery
Date	Indicates the date of setting in "YYYY/MM/DD" format (YYYY: year, MM: month, DD: day)
Remained Life	The remaining date of the battery shelf life
Num of Batteries	The number of batteries
Note: Only the changed items are output.	

Example 5: installing additional MPB

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx,00:00,SVP,uid=user-name,1,,
[Install],Install,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{MPB,Auto LDEV Assignment}=[{MPB-1PE,Enable},{MPB-2PE,Enable},
{MPB-1MC,Enable},{MPB-1PL,Enable},{MPB-2MC,Enable},
{MPB-2PL,Enable}],Num. of MPBs=6
+{CM,CMG,Size}=[{1CC/2CC,CM16G x 2,262144}],Num. of CMs=1
+{BKM,Type,Size}=[{1BC/2BC,BKMS,BMM128 x 2(400GB)}],Num. of BKMs=1
```

```
+DCR available size=2048
+{CLPR,Cache size,DCR size,Extent Number}
=[{CLPR0,275200,0,16384}],Num. of CLPRs=1
+{Battery,Date,Remained Life}=[{BATTERY-1BC,YYYY/MM/DD,990},
{BATTERY-2BC,YYYY/MM/DD,990}],Num. of Batteries=2
```

Detailed Information for Example 5

Item	Description
MPB	The installed location of the MPB
Auto LDEV Assignment	The attribute of the auto LDEV assignment
Num. of MPBs	The number of MPBs
CM	The mounting location of the PCB for cache memory
CMG	The capacity of CMG
Size	The capacity of cache memory
Num. of CMs	The number of cache memory
BKM	The mounting location for BKM
Type BKM	The type of BKM
Size CFM	The size of CFM
Num. of BKMs	The number of BKMs
DCR available size	The capacity of Cache Residency
CLPR	The CLPR number
Cache size	The capacity of the cache memory allocated to CLPR
DCR size	The capacity of the Cache Residency allocated to CLPR
Extent Number	The number of extents allocated to CLPR
Num. of CLPRs	The number of CLPRs
Battery	The mounting location of the battery
Date	Indicates the date of setting in "YYYY/MM/DD" format (YYYY: year, MM: month, DD: day)
Remained Life	The remaining date of the battery shelf life
Num. of Batteries	The number of batteries

Example 6: installing additional SVP

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Install,SVP,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{SVP}={SVP-OPTION}
+{IPAddress,Subnet Mask}
={(123.456.789.123),(255.255.255.255)}
+Use Duplex= Valid
+SVP Kind= Master SVP
+IPv4=Valid
```

```
+IPv6=Valid
+{M-SVP IPv4(IPAddress,Subnet Mask),IPv6(IPAddress,
Subnet Prefix length)}
={((111.222.333.444),(255.255.255.255)),
((1111:2222:3333:4444:5555:6666:7777:8888),(64))}
+{ S-SVP IPv4(IPAddress,Subnet Mask),IPv6(IPAddress,
Subnet Prefix length)}
={((555.666.777.888),(255.255.255.255)),
((9999:AAAA:BBBB:CCCC:DDDD:EEEE:FFFF:0000),(64))}
```

Basic Information

Parameter	Description
SVP	Indicates a change in the IP address of the SVP
SVP and DKC	Indicates a change in the IP address of the SVP and the DKC

Detailed Information for Example 6

Item	Description
SVP	The installed location of the SVP
IPAddress	IP address in the SVP
Subnet Mask	The subnet mask in the SVP
Use Duplex	The duplex status of the SVP. Valid or Invalid will appear.
SVP Kind	The kind of the duplex status. Master SVP or Standby SVP will appear.
IPv4	The status of IPv4 settings. Valid or Invalid will appear.
IPv6	The status of IPv6 settings. Valid or Invalid will appear.
M-SVP IPv4(IPAddress,Subnet Mask) IPv6(IPAddress, Subnet Prefix length)	Master SVP details are provided in the format described below. IPv4 (IPAddress: IP address, Subnet Mask: Subnet mask) IPv6 (IPAddress: IP address, Subnet Prefix length: The value of subnet prefix)
S-SVP IPv4(IPAddress,Subnet Mask) IPv6(IPAddress, Subnet Prefix length)	Standby SVP details are provided in the format described below. IPv4 (IPAddress: IP address, Subnet Mask: Subnet mask) IPv6 (IPAddress: IP address, Subnet Prefix length: The value of subnet prefix)

Example 7: Installing additional SM PP Flag

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Install,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PP Flag=[(64KLDEV, SI/VM Extension, TPF),(TC/UR/GAD)],
Num. of PP Flags=2
+Max Number of CUs=255
```

Detailed Information for Example 7

Item	Description
PP Flag	The flag of the program product
Num. of PP Flags	The number of flags of the program product
Max Number of CUs	The maximum number of CUs

[Install] Install CV

This logged information indicates that the formatting was only requested but not completed. If the operation does not require the formatting, this logged information indicates that the volume was created.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Install CV,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PG,LDKC:CU:LDEV,Slot,Emulation,Size,Unit,SSID,MPB}
=[{1-1,0x00:0x00:0x00,-,OPEN-V,10000,LBA,0x0005,Auto}],
Num. of LDEVs=1
```

Basic Information

Parameter	Description
Non Format	Unformatted Install CV.
Progress Close	The window that shows the progress of LDEV formatting has closed.
Quick Format	Quick Format is selected.
Quick Format Close	The window that shows the progress of preparing for Quick Format has closed.
Note: No parameter is output for any case other than those described in this table.	

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume

Item	Description
	V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume A1-1: In the case of an ALU volume
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers
Slot	The slot number. A hyphen (-) is indicated for Install CV.
Emulation	The emulation type
Size	The CV capacity
Unit	The CV unit capacity
SSID	The storage system ID
MPB	The ownership of the MPB
Num. of LDEVs	The number of LDEVs

[Install] Machine Install Date

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Machine Install Date,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Date=YYYY/MM/DD HH:mm
```

Detailed Information

Item	Description
Date	Indicates the date and the time of the setting in "YYYY/MM/DD HH:mm" format (YYYY: year, MM: month, DD: day, HH: hour, mm: minute).

[Install] Make Volume

This logged information indicates that formatting the volume was requested but not completed. If the operation does not require formatting, this logged information indicates that the volume was created.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Make Volume,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PG,LDKC:CU:LDEV,Slot,Emulation,Size,Unit,SSID,MPB}
=[{1-1,0x00:0x14:0x00,-,OPEN-V,205440,LBA,0x0005,Auto}],
Num. of LDEVs=1
```

Basic Information

Parameter	Description
Non Format	The Make Volume operation does not require the formatting.
Progress Close	The window that shows the progress of LDEV formatting has closed.
Quick Format	Quick Format is selected.
Quick Format Close	The window that shows the progress of preparing for Quick Format has closed.
Note: No parameters are selected for any case other than those described in this table	

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume A1-1: In the case of an ALU volume
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers
Slot	The slot number. A hyphen (-) is indicated for Make Volume.
Emulation	The emulation type
Size	The CV capacity
Unit	The unit of the CV capacity
SSID	The storage system ID
MPB	The ownership of the MPB
Num. of LDEVs	The number of LDEVs

[Install] Micro Program

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Micro Program,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Micro Media=CD-ROM
+Exchange How=Online
+Reboot Grp.=By 1/2
+{Micro Kind, Old Ver, New Ver}
=[{DKCMAIN, 7000320000,7000320001},
{SVP, 70003200, 70003201}],Num. of Kinds=2
```

Detailed Information

Item	Description
Micro Media	The media which the microcode to be exchanged is stored (CD-ROM:CD-ROM, HD: Hard Disk, HD Backup: HDD Backup (version down), or Remote: Remote transfer).
Exchange How	The method to exchange the microcode. Online: Exchanging the microcode online, Offline: Exchanging the microcode offline.
Reboot Grp.	The reboot group (By 1/2, By 1/4, By 1/8 or By One). However, it is not output when microcode is changed offline, or MP reboot is not executed.
Micro Kind	The kind of microcode
Old Ver	The old version number of the microcode
New Ver	The new version number of the microcode
Num. of Kinds	The number of types of microcodes

[Install] MP Install

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],MP Install,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Micro Program
={RAMBOOT,HTP,FCDG,DKCMAIN,FCHF,DKAF},Num. of Kinds=6
+Target MP={MP00-1MA,MP01-1MA,MP02-1MA},Num. of MPs=3
```

Detailed Information

Item	Description
Micro Program	The kind of microcode installed
Num. of Kinds	The number of types of installed microcodes
Target MP	The mounting location of the installed processor
Num. of MPs	The number of processors installed

[Install] M/F DCR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],M/F DCR,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC:CU:LDEV=0x00:0x00:0x00
++{Define,Mode,Prestaging,Start CC-HH,End CC-HH}
=[{Set,Bind,No,00-00,00-10},
{Set,Priority,Yes,1000-00,1009-14}],
```

```
{Delete,-,-,1000-00,1009-14}],
Num. of DCR Settings=3
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the logical volume where Cache Residency is set.
Define	The status of Cache Residency Set: set, Delete: cancel
Mode	The Cache Residency. mode Indicates a dash (-) when Define is Delete. Bind: Bind mode, Priority: Priority mode
Prestaging	Indicates whether the Prestaging mode set is enabled or disabled Indicates a dash (-) when Define is Delete. No: Prestaging mode is disabled, Yes: Prestaging mode is enabled
Start CC-HH	The starting cylinder number (CC) and the starting head number (HH) to which the Cache Residency is set or canceled
End CC-HH	The ending cylinder number (CC) and the ending head number (HH) to which the Cache Residency is set or canceled
Num. of DCR Settings	The number of Cache Residency settings that have been set or canceled

[Install] Open DCR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Open DCR,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC:CU:LDEV=0x00:0x00:0x00
++{Define,Mode,Prestaging,Start LBA,End LBA}
=[{Set,Bind,No,0,2015},{Set,Priority,Yes,3636,4175},
{Delete,-,-,3636,4175}],Num. of DCR Settings=3
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the logical volume where Cache Residency is set
Define	The setting status of Cache Residency. Set: set, Delete: cancel
Mode	The setting mode of Cache Residency. Indicates a dash (-) when Define is Delete. Bind: Bind mode, Priority: Priority mode

Item	Description
Prestaging	Indicates whether the Prestaging mode set is enabled or disabled. Indicates a dash (-) when Define is Delete. No: Prestaging mode is disabled, Yes: Prestaging mode is enabled
Start LBA	The starting LBA number of the data which Cache Residency was set or canceled
End LBA	The ending LBA number of the data which Cache Residency was set or canceled
Num. of DCR Settings	The number of Cache Residencies set or canceled

[Install] Remove

Example 1: removing a channel adapter (CHA)

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Remove,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{CHA,Kind}
=[{CHA-1PC,16FC8(Fibre )},{CHA-2PU,16FC8(Fibre )}],
Num. of CHAs=2
```

Detailed Information for Example 1

Item	Description
CHA	The Channel Adapter mounting location
Kind	The kind of PCB mounted
Num. of CHAs	The number of Channel Adapters

Example 2: removing a Disk Adapter (DKA)

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Remove,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{DKA,Kind}=[{DKA-1PB,DKA  (4Port)},{DKA-1PH,DKA  (4Port)},
{DKA-2PB,DKA  (4Port)},{DKA-2PH,DKA  (4Port)}],Num. of DKAs=4
```

Detailed Information for Example 2

Item	Description
DKA	The Disk Adapter mounting location
Kind	The type of Disk Adapter DKA (4Port): DKA, EDKA (4Port): Encryption DKA Note: In the actual log file, there are two spaces output between "DKA" and "(4Port)".

Item	Description
Num. of DKAs	The number of Disk Adapters
Note: Only the changed items are output.	

Example 3: removing an ECC Group or an LDEV

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Remove,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+DKU=[DKU-01],Num. of DKUs=1
+PG=[1-6,1-7],Num. of PGs=2
+{B4,SPARE}=[{1,1}],Num. of SPAREs=1
```

Detailed Information for Example 3

Only the changed items are output. The detailed information on the recovery process is not output when the setting at the time of removing before the recovery process is complete. However, when the setting is not complete, the setting on the recovery process is output as the detailed information.

Item	Description
DKU	The Disk Unit mounting location
Num. of DKUs	The number of Disk Units
PG	The parity group number
Num. of PGs	The number of parity groups
B4	The B4 number
SPARE	The spare drive number
Num. of SPAREs	The number of spare drives

Example 4: removing a cache memory module

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Remove,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{CM,CMG,Size}
=[{1CA/2CA,CM16G x 2,65536},{1CB/2CB,CM16G x 2,65536},
{1CE/2CG,CM16G x 2,65536},{1CF/2CH,CM16G x 2,65536}],Num. of CMs=4
+{BKM,Type,Size}=[{1BA/2BA,BKML,BMM128 x 2(400GB)},
{1BB/2BB,BKML,BMM128 x 2(400GB)},{1BC/2BC,BKML,BMM128 x 2(400GB)},
{1BD/2BD,BKML,BMM128 x 2(400GB)}],Num. of BKMs=4
+DCR available size=1024
+{CLPR,Cache size,DCR size,Extent Number}
=[{CLPR0,217088,3072,15384}],Num. of CLPRs=1
+PP Flag=[(64KLDEV, SI/VM Extension, TPF),(TC/UR/GAD)],
Num. of PP Flags=2
+Max Number of CUs=64
```

Detailed Information for Example 4

Item	Description
CM	The mounting location of the PCB for cache memory
CMG	The capacity of the CMG
Size	The capacity of the cache memory
Num. of CMs	The number of cache memories
BKM	The mounting location for BKM
Type	The type of BKM
Size	The size of CFM
Num. of BKMs	The number of BKMs
DCR available size	The capacity of the Cache Residency
CLPR	The CLPR number
Cache size	The capacity of the cache memory allocated to CLPR
DCR size	The capacity of the Cache Residency allocated to CLPR
Extent Number	The number of extents allocated to CLPR
Num. of CLPRs	The number of CLPRs
PP Flag	The flag of the program product
Num. of PP Flags	The number of program product flags
Max Number of CUs	The maximum number of CUs
Note: Only the changed items are output.	

Example 5: removing MPB

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Remove,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{MPB,Auto LDEV Assignment}
=[{MPB-1MB,Disable},{MPB-2MB,Enable},{MPB-1MD,Enable},
{MPB-2MD,Enable}],Num. of MPBs=4
+{CM,CMG,Size}=[{1CC/2CC,CM16G x 2,0}],Num. of CMs=1
+{BKM,Type,Size}=[{1BC/2BC,----------,0}],Num. of BKMs=1
+DCR available size=1024
+{CLPR,Cache size,DCR size,Extent Number}
=[{CLPR0,177664,0,16384}],Num. of CLPRs=1
```

Detailed Information for Example 5

Item	Description
MPB	The installed location of the MPB
Auto LDEV Assignment	The attribute of auto LDEV assignment

Item	Description
Num. of MPBs	The number of MPBs
CM	The mounting location of the PCB for cache memory
CMG	The capacity of the CMG
Size	The capacity of the cache memory
Num. of CMs	The number of cache memories
BKM	The mounting location for BKM
Type	The type of BKM
Size	The size of CFM
Num. of BKMs	The number of BKMs
DCR available size	The capacity of the Cache Residency
CLPR	The CLPR number
Cache size	The capacity of the cache memory allocated to CLPR
DCR size	The capacity of the Cache Residency allocated to CLPR
Extent Number	The number of extents allocated to CLPR
Num. of CLPRs	The number of CLPRs

Example 6: removing SVP

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Remove,SVP,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{SVP}={SVP-OPTION}
+{IPAddress,Subnet Mask}={(123.456.789.123),(255.255.255.255)}
+Use Duplex=Invalid
+Svp Kind=Master SVP
+IPv4=Valid
+IPv6=Valid
+{M-SVP IPv4(IPAddress,Subnet Mask),
IPv6(IPAddress,Subnet Prefix length)}
={((111.222.333.444),(255.255.255.255)),
((1111:2222:3333:4444:5555:6666:7777:8888),(64))}
+{S-SVP IPv4(IPAddress,Subnet Mask),
IPv6(IPAddress,Subnet Prefix length)}
={((555.666.777.888),(255.255.255.255)),
((9999:AAAA:BBBB:CCCC:DDDD:EEEE:FFFF:0000),(64))}
```

Basic Information

Parameter	Description
SVP	Indicates a change in the IP address of the SVP
SVP and DKC	Indicates a change in the IP address of the SVP and the DKC

Detailed Information for Example 6

Item	Description
SVP	The installed location of the SVP
IPAddress	IP address in the SVP
Subnet Mask	The subnet mask in the SVP
Use Duplex	The duplex status of the SVP. Valid or Invalid will appear.
SVP Kind	The kind of the duplex status. Master SVP or Standby SVP will appear.
IPv4	The status of IPv4 settings. Valid or Invalid will appear.
IPv6	The status of IPv6 settings. Valid or Invalid will appear.
M-SVP IPv4(IPAddress,Subnet Mask) IPv6(IPAddress, Subnet Prefix length)	Master SVP details are provided in the format described below. IPv4 (IPAddress: IP address, Subnet Mask: Subnet mask) IPv6 (IPAddress: IP address, Subnet Prefix length: The value of subnet prefix)
S-SVP IPv4(IPAddress,Subnet Mask) IPv6(IPAddress, Subnet Prefix length)	Standby SVP details are provided in the format described below. IPv4 (IPAddress: IP address, Subnet Mask: Subnet mask) IPv6 (IPAddress: IP address, Subnet Prefix length: The value of subnet prefix)

Example 7: removing SM PP Flag

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Remove,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PP Flag=[(64KLDEV, SI/VM Extension, TPF),(TC/UR/GAD)],
Num. of PP Flags=2
+Max Number of CUs=64
```

Detailed Information for Example 7

Item	Description
PP Flag	The flag of the program product
Num. of PP Flags	The number of program product flags
Max Number of CUs	The maximum number of CUs

[Install] Restore Config.

The audit log files in Example 1 and Example 2 are output when the Restore Configuration operation is performed by using an SVP. However, the audit log file in Example 2 is not output if the Restore Configuration operation is suspended before the Define Configuration and Install operation is performed.

Example 1

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Restore Config,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{New Ver.,Old Ver.}={xx-xx-xx/xx,xx-xx-xx/xx}
```

Detailed Information for Example 1

Item	Description
New Ver.	The new version number
Old Ver.	The old version number

Example 2

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Restore Config.,SVP and DKC,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

Basic Information for Example 2

Parameter	Description
SVP and DKC	Indicates that the configuration of the SVP and DKC has been restored.

[Install] Set Battery Life

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Battery Life,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Use Battery Life=Valid
+{Battery,Date,Remained Life}=[{BATTERY-1BA,YYYY/MM/DD,990},
{BATTERY-2BA,YYYY/MM/DD,990}],Num. of Batteries=2
```

Detailed Information

Item	Description
Use Battery Life	The status of Battery life function set. Valid: Valid, Invalid: Invalid
Battery	The mounting location of the battery

Item	Description
Date	Indicates the date of the setting in "YYYY/MM/DD" format (YYYY: year, MM: month, DD: day)
Remained Life	The remaining date of the battery shelf life
Num of Batteries	The number of batteries

[Install] Set Channel Speed

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Channel Speed,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Speed(Gbps)}=[{XX,1},{XX,2},{XX,Auto}],
Num. of Ports=3
```

Detailed Information

Item	Description
Port	The name of the port on which the channel speed is set.
Speed(Gbps)	The channel speed set 1: 1 Gbps, 2: 2 Gbps, 4: 4 Gbps, 8: 8 Gbps, Auto: Auto mode.
Num. of Ports	The number of ports where the channel speed is set

[Install] Set CommandDev

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set CommandDev,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,CommandDev}=[{0x00:0xXX:0xXX,Disable},
{0x00:0xXX:0xXX,Enable}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume where the command device is set
CommandDev	Indicates whether the command device setting is enabled or disabled. Disable or Enable will appear
Num. of LDEVs	The number of logical volumes where the command device is set.

[Install] Set CommandDevSec

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set CommandDevSec,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,CommandDevSec}=[{0x00:0xXX:0xXX,Disable},
{0x00:0xXX:0xXX,Enable}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume where the command device is set
CommandDevSec	Indicates whether the command device security setting is enabled or disabled. Disable or Enable will appear
Num. of LDEVs	The number of logical volumes where the command device is set.

[Install] Set DevGrpDef

Example

```
08xx, YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set DevGrpDef,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,DevGrpDef}=[{0xXX:0xXX:0xXX,Enable}],
Num. of LDEVs=1
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the volume where the device group definition is specified.
UserAuth	Indicates whether the device group definition is enabled or disabled. Disable or Enable will appear.
Num. of LDEVs	The number of logical volumes where the device group definition is set.

[Install] Set Fibre Address

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Fibre Address,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Fibre Addr.}=[{XX,0xXX(xx)},{XX,0xXX(xx)}],Num. of Ports=2
```

Detailed Information

Item	Description
Port	The name of the port that the fibre address has been set
Fibre Addr.	The address of the Fibre Channel port after the setting is made The information outside the parentheses indicates AL-PA (arbitrated-loop physical address).The information inside the parentheses indicates the loop ID.
Num. of Ports	The number of ports where address has been set

[Install] Set Fibre Topology

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Fibre Topology,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Fabric,Connection}
=[{XX,Enable,FC-AL},{XX,Disable,FC-AL},
{XX,Enable,P-to-P},{XX,Disable,P-to-P}],Num. of Ports=4
```

Detailed Information

Item	Description
Port	The name of the port where the topology of Fibre Channel is set
Fabric	Indicates whether the Fabric switch is enabled or disabled Enable: Enabled, Disable: Disabled
Connection	The connecting mode of the Fabric switch selected FC-AL: FC-AL is selected, P-to-P: P-to-P is selected
Num. of Ports	The number of ports where the topology of Fibre Channel is set

[Install] Set Host Mode

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Host Mode,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,Mode,Option[0:31],Option[32:63],Option[64:95],
Option[96:127]}
=[{XX,0xXXX,0x00,0xXXXXXXXX,0xXXXXXXXX,0xXXXXXXXX,0xXXXXXXXX},
{XX,0xXXX,0x4F,0xXXXXXXXX,0xXXXXXXXX,0xXXXXXXXX,0xXXXXXXXX}],
Num. of Host Groups=2
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs
HostGrpID	The host group number
Mode	The host mode set. Please see the *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Open Systems* for the meaning of the host mode number
Option[0:31] Option[32:63] Option[64:95] Option[96:127]	The specified host mode option. 128 host mode options from 0 to 127 are output in groups of 32 options. Please see Table 4-1 Host mode option 0 to 31 and output contents of Option[0:31] on page 4-125 to Table 4-4 Host mode option 96 to 127 and output contents of Option[96:127] on page 4-126 for the relation of output values and host mode option. Please see the *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Open Systems* for the meaning of the host mode number.
Num. of Host Groups	The number of host groups that the host mode setting is changed

[Install] Set IP Address

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set IP Address,SVP and DKC,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{IPAddress,Subnet Mask}={(123.456.789.123),(255.255.255.255)}
+Use Duplex=Valid
+Svp Kind=Master SVP
+IPv4=Valid
+IPv6=Valid
+{M-SVP IPv4(IPAddress,Subnet Mask),
IPv6(IPAddress,Subnet Prefix length)}
={((111.222.333.444),(255.255.255.255)),
((1111:2222:3333:4444:5555:6666:7777:8888),(64))}
+{S-SVP IPv4(IPAddress,Subnet Mask),
IPv6(IPAddress,Subnet Prefix length)}
={((555.666.777.888),(255.255.255.255)),
((9999:AAAA:BBBB:CCCC:DDDD:EEEE:FFFF:0000),(64))}
```

Basic Information

Parameter	Description
SVP	The SVP IP address change
SVP and DKC	The IP address change of the SVP and DKC

Detailed Information

Item	Description
IPAddress	The SVP IP address
Subnet Mask	The subnet mask in SVP
Use Duplex	Indicates whether the Duplex setting in SVP is valid or invalid Valid: Valid, Invalid: Invalid
SVP Kind	The kind of duplicated SVP Master SVP: Master SVP, Standby SVP: Standby SVP.
IPv4	The status of IPv4 Valid: enabled, Invalid: disabled
IPv6	The status of IPv6 Valid: enabled, Invalid: disabled
M-SVP IPv4(IPAddress,Subnet Mask) IPv6(IPAddress,Subnet Prefix length)	Master SVP details are provided in the format described below IPv4 (IPAddress: IP address, Subnet Mask: Subnet mask) IPv6 (IPAddress: IP address, Subnet Prefix length: The value of subnet prefix)
S-SVP IPv4(IPAddress,Subnet Mask) IPv6(IPAddress,Subnet Prefix length)	Standby SVP details are provided in the format described below IPv4 (IPAddress: IP address, Subnet Mask: Subnet mask) IPv6 (IPAddress: IP address, Subnet Prefix length: The value of subnet prefix)

[Install] Set Security Switch

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Security Switch,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Switch}=[{XX,Disable},{XX,Enable}],Num. of Ports=2
```

Detailed Information

Item	Description
Port	The name of the port where the LUN security setting is changed
Switch	Indicates whether the LUN security setting is enabled or disabled. Disable or Enable will appear.
Num. of Ports	The number of ports where the LUN security setting is changed

[Install] Set Subsystem Time

Example 1: The case of TOD Change

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Subsystem Time,TOD Change,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Time=YYYY/MM/DD HH:mm:SS
```

Example 2: The case of Synchro. Infor.

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Subsystem Time,Synchro. Infor.,Normal end,
from=xxx:xxx:xxx:xxx,,Seq.=xxxxxxxxxx
+Use Synchro.=Valid
+{Server priority,SNTP IP/Host,SNTP Port,Time Zone}=
[{Priority one,(123.456.789.123),100,Tokyo Standard Time}],
Num. of Servers=1
+Check Time=23
+Create SIM=ON
```

Example 3: The case of Change time zone

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set Subsystem Time,Change time zone,Normal end,
from=xxx:xxx:xxx:xxx,,Seq.=xxxxxxxxxx
+{Time Zone,DST}={(UTC+09:00) Osaka Sapporo Tokyo,Invalid}
```

Basic Information

Parameter	Description
TOD Change	The setting of the date and the time
Synchro. Infor.	The setting of time correction function
Change time zone	The setting of the time zone

Detailed Information for Example 1

Item	Description
Time	Indicates the date and the time in the format of "YYYY/MM/DD HH:mm:SS".(YYYY: year, MM: month, DD: date, HH: hour, mm: minute, SS: second).

Detailed Information for Example 2

Item	Description
Use Synchro.	Indicates whether the time correction function is valid or invalid Valid: Enable, Invalid: Disable
Server priority	The SNTP server priority
SNTP IP/Host	The IP address (IPv4 or IPv6) or host name of the SNTP server

Item	Description
	Commas that are input in the host name by a user are indicated with spaces.
SNTP Port	The port number used by the SNTP server
Time Zone	The specified time zone
Num. of Servers	The number of SNTP servers that are set
Check Time	The time when the time correction function is executed. Only HH (Hour: 00 to 23) is indicated for the execution time.
Create SIM	Indicates whether the SIM was created or not when the setting of time correction failed ON: Created, OFF: Not created

Detailed Information for Example 3

Item	Description
Time Zone	The specified time zone Commas included in the setting value are not indicated.
DST	Indicates whether the daylight saving time adjustment is valid or invalid Valid: Enable, Invalid: Disable

[Install] Set UserAuth

Example

```
08xx, YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Set UserAuth,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,UserAuth}=[{0xXX:0xXX:0xXX,Enable}],
Num. of LDEVs=1
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the volume where the user authentication is specified.
UserAuth	Indicates whether the user authentication is enabled or disabled. Disable or Enable will appear.
Num. of LDEVs	The number of logical volumes where the user authentication is set.

[Install] System Option

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],System Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Spare Disk Recover=Full Speed
+Disk Copy Pace=Slower
+Copy Operation(Correction Copy)=OFF
+Copy Operation(Dynamic Sparing)=OFF
+Link Failure Threshold=10
+{LDKC:CU:LDEV,Destage}=[{0x00:0x00:0x00,OFF}],
Num. of LDEVs=1
+{LPR,Cache Tuning}=[{System,Level5}],Num. of LPRs=1
+{LPR,Command Control}=[{System,10}],Num. of LPRs=1
+{LPR,Mode,Set}=[{System,0,ON}],Num. of Modes=1
+Debug Mode=Set
```

Detailed Information

Item	Description
Spare Disk Recover	Indicates the setting status of Spare Disk Recover. Interleave: Give priority to the access from the host while executing copy process, Full speed: Give priority to the copy process.
Disk Copy Pace	Indicates the setting status of Disk Copy Pace. Slower: Low speed, Medium: Medium speed, Faster: High speed
Copy Operation (Correction Copy)	Indicates the setting status of Copy Operation (Correction Copy). ON: Execute Correction Copy, OFF: Do not execute Correction Copy
Copy Operation (Dynamic Sparing)	Indicates the setting status of Copy Operation (Dynamic Sparing). ON: Execute Dynamic Sparing, OFF: Do not execute Dynamic Sparing
Link Failure Threshold	The threshold to report link failure
LDKC:CU: LDEV	The LDKC number, the CU number, and the LDEV number
Destage	Indicates the setting status of Destage. ON: Execute write through operation (report the completion of the writing to the host after the writing to the disk drive has completed). OFF: Do not execute write through operation (report the completion of the writing to the host when the data is written in the cache memory).
Num. of LDEVs	The number of LDEVs
LPR	The LPR name
Cache Tuning	The level of Cache Tuning
Num. of LPRs	The number of LPRs
Command Control	Command Control
Mode	The local mode number

Item	Description
Set	The setting status. ON: Set, Off: Release
Num. of Modes	The number of local modes.
Debug Mode	Setting executed from the debug window (Set: fix).
Note: Only the changed items will be output.	

[Install] System Tuning

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],System Tuning,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Serial No.=64040
+IP Address Mode=Based on Serial Number
+IP Address=126.132.246.15
+Subnet Mask=255.0.0.0
+{Port,CU Number,Emulation}=[{1E,-,I-2107},
{3E,0x00:0x10-0x00:0x1F,I-2107},{5E,-,I-2107},{7E,-,I-2107}],
Num. of Ports=4
+{LDKC:CU,LDEV,SSID}=[{0x00:0x00,0x00-0xff,0x0005}],
Num. of SSIDs=1
+{TPF Enable,Number of MPLs}={ON,4096}
```

Detailed Information

Item	Description
Serial No.	The serial number
IP Address Mode	The IP address mode set. Based on Serial Number: Set the IP address from the serial number. Specified: Set the specified IP address.
IP Address	The IP address set
Subnet Mask	The subnet mask set
Port	The mounting location of the port
CU Number	Indicates the range of the CU number that the port belongs
Emulation	The emulation type
Num. of Ports	The number of ports
LDKC:CU	The LDKC number and the CU number
LDEV	The LDEV number
SSID	The storage system ID
Num. of SSIDs	The number of storage system IDs

Item	Description
TPF Enable	The status of TPF Function settings ON: Enabled OFF: Disabled
Number of MPLs	The allocated number of MPLs A hyphen (-) appears if the TPF Enable is OFF.

[Install] Update Config

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Update Config,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{New Ver.,Old Ver.}={xx-xx-xx/xx,xx-xx-xx/xx}
```

Detailed Information

Item	Description
New Ver.	The new version number
Old Ver.	The old version number

[Install] Volume to Space

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Install],Volume to Space,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PG,LDKC:CU:LDEV}=[{1-1,0x00:0x00:0x01},{1-1-(1),
0x00:0x00:0x02}],Num. of LDEVs=2
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume A1-1: In the case of an ALU volume
LDKC:CU:LDEV	The LDKC number, the CU number and the LDEV number
Num. of LDEVs	The number of LDEVs

Local Replication Descriptions

[Local Replication] Assign S-VOLs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Assign S-VOLs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),PoolID,MU,
Snapshot Group,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,1,SnapshotSet1,Normal end},
{0xX:0xAA:0xBB,0xY:0xCC:0xDD,0,,SnapshotSet2,Error(xxxx-yyyyy)}],
Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation TI: Thin Image
P-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the primary volume
S-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the assigned secondary volume No output if a secondary volume is not specified during the assigning operation.
PoolID	The pool ID of the assigned secondary volume
MU	The mirror unit number of the assigned secondary volume No output if a mirror unit number is not specified during the assigning operation.
Snapshot Group	The snapshot group name
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of pairs to which secondary volumes are assigned

[Local Replication] Create Pairs

Example 1: when the copy type is SI or SIMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Create Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SI,Copy Pace=Faster,Split Type=Non Split
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MU,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,Normal end},
```

```
{0xX:0xAA:0xBB,0xY:0xCC:0xDD,1,Error(xxxx-yyyyy)}],
Num. of Pairs=2
```

Example 2: when the copy type is TI

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Create Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),PoolID,MU,
Snapshot Group,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,1,SnapshotSet1,Normal end},
{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,,SnapshotSet2,
Error(xxxx-yyyyy)}],
Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SI: ShadowImage, SIMF: ShadowImage for Mainframe, TI: Thin Image
Copy Pace	The copy speed Faster: High speed, Medium; Medium speed, Slower: Low speed This item is output only when the copy type is SI or SIMF.
Split Type	The split type Non Split: Does not split the pair, Quick Split: Pair split by background copy, Steady Split: Pair split by update copy This item is output only when the copy type is SI or SIMF.
P-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the primary volume in the created pair
S-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the secondary volume in the created pair No output if Copy Type is TI, and a secondary volume is not specified during the pair creation operation.
PoolID	The pool ID of the secondary volume of the created pair This item is output only when the copy type is TI.
MU	The mirror unit number of the created pair When Copy Type is TI, the value of this item is not output if a mirror unit number is not specified while creating the pair.
Snapshot Group	The snapshot group name This item is output only when the copy type is TI.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of created pairs

[Local Replication] Delete Pairs

Example 1: when the copy type is SI or SIMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Delete Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,Normal end},
{0xX:0xAA:0xBB,0xYY:0xCC:0xDD,Error(xxxx-yyyyy)}],
Num. of Pairs=2
```

Example 2: when the copy type is TI

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Delete Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MU,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,,Normal end},
{0xX:0xAA:0xBB,,1,Error(xxxx-yyyyy)}],Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SI: ShadowImage, SIMF: ShadowImage for Mainframe, TI: Thin Image
P-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the primary volume in the deleted pair
S-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the secondary volume in the deleted pair No output if Copy Type is TI, and a secondary volume is not specified during the pair creation operation.
MU	The mirror unit number of the deleted pair The index and value of this item are output only when Copy Type is TI. However, the value of this item is not output if a MU is not specified during the pair deletion operation.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of deleted pairs

[Local Replication] Edit Options

Example 1: when the copy type is SI

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+Copy Type=SI
++Swap & Freeze=Enable,HOST I/O Performance=Enable,
Reserve03=Enable,(snip),Copy Pace Ext. Slower1=Disable,
Copy Pace Ext. Slower2=Disable,Copy Pace Ext.None=Disable,
(snip),Reserve32=Disable
```

Example 2: when the copy type is SIMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SIMF
++Swap & Freeze=Enable,HOST I/O Performance=Enable,
FC Slower Copy1=Enable,FC Slower Copy2=Enable,
Reserve05=Disable,(snip),FC Ext. Slower Copy1=Enable,
FC Ext. Slower Copy2=Enable,(snip),
Copy Pace Ext. Slower1=Disable,
Copy Pace Ext. Slower2=Disable,Copy Pace Ext. None=Disable,
(snip),Reserve32=Disable
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SI: ShadowImage, SIMF: ShadowImage for Mainframe
Swap & Freeze	Indicates whether the Swap & Freeze option is enabled or disabled. Enable: Enabled, Disable: Disabled
Host I/O Performance	Indicates whether the Host I/O Performance option is enabled or disabled. Enable: Enabled, Disable: Disabled
FC Slower Copy1	Indicates whether the FC Slower Copy1 option is enabled or disabled. Enable: Enabled, Disable: Disabled This item is output only when Copy Type is SIMF.
FC Slower Copy2	Indicates whether the FC Slower Copy2 option is enabled or disabled. Enable: Enabled, Disable: Disabled This item is output only when Copy Type is SIMF.
FC Ext. Slower Copy1	Indicates whether the FC Ext. Slower Copy1 option is enabled or disabled. Enable: Enabled, Disable: Disabled This item is output only when Copy Type is SIMF.
FC Ext. Slower Copy2	Indicates whether the FC Ext. Slower Copy2 option is enabled or disabled. Enable: Enabled, Disable: Disabled This item is output only when Copy Type is SIMF.
Copy Pace Ext. Slower1	Indicates whether the Copy Pace Ext. Slower1 option is enabled or disabled. Enable: Enabled, Disable: Disabled

Item	Description
Copy Pace Ext. Slower2	Indicates whether the Copy Pace Ext. Slower2 option is enabled or disabled. Enable: Enabled, Disable: Disabled
Copy Pace Ext. None	Indicates whether the Copy Pace Ext. None option is enabled or disabled. Enable: Enabled, Disable: Disabled
Reserve *X*	Reserved items If Copy Type is SI, X is the number, 03 to 19 and 23 to 32. If Copy Type is SIMF, X is the number, 05 to 16, 19, and 23 to 32.

[Local Replication] Initialize

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Initialize,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Local Replication] Release Reserved CTG

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Release Reserved CTG,,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SIMF
++{CTG,Result}=[{0x01,Normal end},{0x02,Normal end},
{0x03,Normal end}],Num. of CTGs=3
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SIMF: ShadowImage for Mainframe
CTG	The number of a reserved consistency group
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of CTGs	The number of consistency groups whose reserved attribute is released

[Local Replication] Remove S-VOLs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Remove S-VOLs,,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),PoolID,MU,
Snapshot Group,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,1,SnapshotSet1,Normal end},
{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,0,,SnapshotSet2,Error(xxxx-yyyy)}],
Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation TI: Thin Image
P-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the primary volume No output if a primary volume is not specified during the secondary volume removal operation.
S-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the removed secondary volume No output if a secondary volume is not specified during the removal operation.
PoolID	The pool ID of the removed secondary volume
MU	The mirror unit number of the removed secondary volume No output if a mirror MU is not specified during the secondary volume removal operation.
Snapshot Group	The snapshot group name
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of pairs whose secondary volumes are removed

[Local Replication] Reserve CTG

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Reserve CTG,,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SIMF
++{CTG,Result}=[{0x01,Normal end},{0x02,Normal end},
{0x03,Normal end}],Num. of CTGs=3
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SIMF: ShadowImage for Mainframe
CTG	The number of a reserved consistency group
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyyy*): Abnormal end *xxxx*: Part code, *yyyyyy*: Error code
Num. of CTGs	The number of reserved consistency groups

[Local Replication] Resync Pairs

Example 1: when the copy type is SI or SIMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Resync Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SI,Copy Pace=Medium,Resync Type=Normal Copy
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,Normal end},
{0xX:0xAA:0xBB,0xY:0xCC:0xDD,Error(xxxx-yyyyy)}],
Num. of Pairs=2
```

Example 2: when the copy type is TI

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Resync Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TI,Resync Type=Reverse Copy
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MU,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,,Normal end},
{0xX:0xAA:0xBB,,1,Error(xxxx-yyyyy)}],Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SI: ShadowImage, SIMF: ShadowImage for Mainframe, TI: Thin Image
Copy Pace	The copy speed Faster: High speed, Medium; Medium speed, Slower: Low speed This item is output only when the copy type is SI or SIMF.
Resync Type	The resynchronization type Normal Copy: Normal resynchronization, Quick Resync: High speed resynchronization, Reverse Copy: Reverse resynchronization, Quick Restore: High speed restore

Item	Description
P-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the primary volume in the resynchronized pair
S-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the secondary volume in the resynchronized pair When Copy Type is TI, the values of the secondary volume are not output if the value of MU is output.
MU	The mirror unit number of the resynchronized pair The index and value of this item are output only when Copy Type is TI. However, the value of this item is not output if those of the secondary volume are output.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of resynchronized pairs

[Local Replication] Split Pairs

Example 1: when the copy type is SI or SIMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Split Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SI,Copy Pace=Faster,Split Type=Steady Split
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,Normal end},
{0xX:0xAA:0xBB,0xY:0xCC:0xDD,Error(xxxx-yyyyy)}],
Num. of Pairs=2
```

Example 2: when the copy type is TI

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Split Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MU,Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,,Normal end},
{0xXX:0xAA:0xBB,,1,Error(xxxx-yyyyy)}],Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SI: ShadowImage, SIMF: ShadowImage for Mainframe, TI: Thin Image
Copy Pace	The copy speed Faster: High speed, Medium; Medium speed, Slower: Low speed This item is output only when the copy type is SI or SIMF.

Item	Description
Split Type	The split type Quick Split: Pair split by background copy, Steady Split: Pair split by update copy This item is output only when the copy type is SI or SIMF.
P-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the primary volume in the split pair
S-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the secondary volume in the split pair No output if Copy Type is TI, and a secondary volume is not specified during the pair splitting operation.
MU	The mirror unit number of the split pair The index and value of this item are output only when Copy Type is TI. However, the value of this item is not output if a MU is not specified during the pair splitting operation.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of split pairs

[Local Replication] Suspend Pairs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[Local Replication],Suspend Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=SI
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),Result}
=[{0xXX:0xAA:0xBB,0xYY:0xCC:0xDD,Normal end},
{0xX:0xAA:0xBB,0xY:0xCC:0xDD,Error(xxxx-yyyyy)}],
Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation SI: ShadowImage, SIMF: ShadowImage for Mainframe
P-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the primary volume in the suspended pair
S-VOL (LDKC:CU:LDEV)	The LDKC number, the CU number and the LDEV number of the secondary volume in the suspended pair
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code

Item	Description
Num. of Pairs	The number of suspended pairs

Maintenance Descriptions

[Maintenance] Blockade

Example 1: blocking a PCB

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Blockade,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PCB=[CHA-1PC],Num. of PCBs=1
```

Example 2: blocking an LDEV

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Blockade,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PCB	The mounting location of the PCB (Channel Adapter (CHA), Disk Adapter (DKA), CM, MPB) to be blocked
Num. of PCBs	The number PCB to be blocked
PDEV	The mounting location of the PDEV (physical device) to be blocked
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Maintenance] Correction Copy

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Correction Copy,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PDEV=HDD000-00
```

Detailed Information

Item	Description
PDEV	The mounting location of the PDEV (physical device)

[Maintenance] DMA Restore

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],DMA Restore,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+DMA=[DMA-10],Num. of DMAs=1
```

Detailed Information

Item	Description
DMA	The specified DMA
Num. of DMAs	The number of specified DMAs

[Maintenance] Drive Interrupt

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Drive Interrupt,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PDEV=HDD000-00
```

Detailed Information

Item	Description
PDEV	The mounting location of the PDEV (physical device)

[Maintenance] DRR Restore

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],DRR Restore,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+DRR=[DRR-10],Num. of DRRs=1
```

Detailed Information

Item	Description
DRR	The specified DRR
Num. of DRRs	The number of specified DRRs

[Maintenance] Format

The logged information indicates that the Format operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Format,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Maintenance] Format Stop

This log information is output when the format process is suspended.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Format Stop,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume

Item	Description
	X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Maintenance] MP Restore

Example

```
08xx,YYYY/MM/DD,HH:MM:SS:xxx, 00:00,SVP,uid=maintenance,0,,
[Maintenance],MP Restore,,Error,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+MP=[MP08-2MC],Num. of MPs=1
```

Detailed Information

Item	Description
MP	The identity of the microprocessor
Num. of MPs	The number of microprocessors that were restored

[Maintenance] PCB Restore

Example

```
08xx,YYYY/MM/DD,HH:MM:SS:xxx, 00:00,SVP,uid=maintenance,0,,
[Maintenance],PCB Restore,,Error,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PCB=[CACHE-2CC],Num. of PCBs=1
```

Detailed Information

Item	Description
PCB	The PCB.
Num. of PCBs	The number of PCBs

[Maintenance] Pre QuickFormat Stop

This log information is output when the Quick Format process is suspended.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Pre QuickFormat Stop,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Maintenance] Quick Format

The logged information indicates that the Quick Format operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Quick Format,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs.

[Maintenance] Replace

Example 1: replacing parts

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance], Replace,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Parts name=SSVPMN-0
```

Example 2: replacing SFP

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance], Replace,,Normal end,
```

```
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+SFP=[1A,3A,5A,7A],Num. of SFPs=4
```

Example 3: replacing Channel Adapter (CHA), Disk Adapter (DKA), cache memory, MPB, and BKM

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance], Replace,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PCB=[CHA-1PC],Num. of PCBs=1
+Failed=[CHA-1PC],Num. of PCBs=1
```

Example 4: replacing PDEV (physical device)

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance], Replace,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PDEV=HDD000-00
+Copy=Restore Data
```

Example 5: replacing SSW

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance], Replace,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+SSW=[SSW000-1],Num. of SSWs=1
```

Detailed Information

Item	Description
Parts name	The name of the parts (DKCPS-xx, DKCFAN-xxx, DKCPANEL-x,SSVPMN-x, PCIADP, PCICON, SVP-BASIC, SVP-OPTION, HUBBOX-xx, DKUPS-xxx, MODCON-x) specified to be replaced
SFP	The port that Small Form-Factor Pluggables (SFPs) are inserted.
Num.of SFPs	The number of inserted Small Form-Factor Pluggables
PCB	The mounting location of the PCB, (Channel Adapter (CHA), Disk Adapter (DKA), cache memory, MPB, or BKM) to be replaced.
Failed	When replacing multiple PCBs and some of the PCBs to be replaced had failures, the mounting locations of the failed PCBs are indicated. In such case, "Warning" is output as the result of the process. *Note*: This information is not output when there are no failed PCBs.
Num. of PCBs	The number of PCBs to be replaced
Physical Device (PDEV)	The mounting location of the PDEVs (physical devices) to be replaced
Copy	The status of copy process when replacing physical devices (PDEV)s. This information is output only when replacing PDEVs. Restore Data: Data recovery from spare disk, Correction Copy: correction copy
Diagnosis	Diagnosis is output only when INLINE skip is selected when replacing PDEVs. This information is output only when replacing PDEVs.

Item	Description
Micro Program	Micro Program is output only when microcode update is skipped when replacing PDEVs. This information is output only when replacing PDEVs.
SSW	The mounting location of SSWs to be replaced
Num. of SSWs	The number of SSWs to be replaced

[Maintenance] Restore

Example 1: restoring PCB

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Restore,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PCB=[CHA-1PC],Num. of PCBs=1
```

Example 2: restoring LDEV

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Restore,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PCB	The mounting location of the PCB (Channel Adapter (CHA), Disk Adapter (DKA), MPB) to be restored
Num. of PCBs	The number of PCBs to be restored
PDEV	The location of the PDEV to be restored
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Maintenance] Restore Data

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Restore Data,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PDEV=HDD000-00
```

Detailed Information

Item	Description
PDEV	The mounting location of the PDEV

[Maintenance] Set Battery Life

This log information is output when Battery Life Warning SIM is set at the time of replacing a CM or a battery.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Set Battery Life,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Battery,Date,Remained Life}=[{BATTERY-1BA,YYYY/MM/DD,990}],
Num. of Batteries=1
```

Detailed Information

Item	Description
Battery	The mounting location of the battery
Date	Indicates the date of the setting in "YYYY/MM/DD" format (YYYY: year, MM: month, DD: day)
Remained Life	The remaining date of the battery shelf life
Num of Batteries	The number of batteries

[Maintenance] Size Change

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Size Change,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PCB=[CACHE-1CA],Num. of PCBs=1
+SIZE=32768
```

Detailed Information

Item	Description
PCB	The mounting location of the PCB (Cache Memory (CM))
Num. of PCBs	The number of PCBs
SIZE	The cache capacity

[Maintenance] Spare Disk

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Spare Disk,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PDEV=HDD000-00
```

Detailed Information

Item	Description
PDEV	The mounting location of the PDEV

[Maintenance] Switch SVP

This logged information indicates that the Switch SVP operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Switch SVP,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Maintenance] Transfer Config

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Transfer Config,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Maintenance] Type Change

Example1: changing type of SFPs

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Type Change,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{SFP,Type}=[{1A,Short Wave},{3A,Short Wave},
{5A,Short Wave},{7A,Long Wave}],Num. of SFPs=4
```

Detailed Information

Item	Description
SFP	The port that Small Form-Factor Pluggables (SFPs) are inserted
Type	The type of the Small Form-Factor Pluggable (SFP) Short Wave: Short wave, Long Wave: Long wave

Item	Description
Num. of SFPs	The number of inserted Small Form-Factor Pluggable (SFP)s

Example 2: changing type of PCBs

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Type Change,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PCB=[DKA-1PA],Num. of PCBs=1
+Type=DKA  (4Port )
```

Detailed Information

Item	Description
PCB	The mounting location of the PCB to be changed
Num. of PCBs	The number of the PCBs to be changed
Type	The type of the PCB DKA (4Port): DKA, EDKA (4Port): Encryption DKA Note: In the actual log file, there are two spaces output between "DKA" and "(4Port)".

[Maintenance] Verify

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Verify,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

[Maintenance] Verify Stop

This log information is output when the format process is suspended.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Maintenance],Verify Stop,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+PG=[1-1],Num. of PGs=1
```

Detailed Information

Item	Description
PG	The parity group number E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups
LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs

Monitor Descriptions

[Monitor] Threshold

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[Monitor],Threshold,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Item,Threshold,Term}=[{Cache Use Rate,10,20},
{Cache Write Pending Rate,0,0},
{Cache MCU Side File Rate,0,0},
{MP Processing Rate,70,30},
{Loss of Signal Count(Fibre),50,5},
{Bad Received Character Count(Fibre),0,0},
{Loss of Synchronization Count(Fibre),0,0},
{Link Failure Count(Fibre),80,10},
{Received EOFa Count(Fibre),0,0},
{Discarded Frame Count(Fibre),0,0},
{Bad CRC Count(Fibre),0,0},
{Protocol Error Count(Fibre),0,0},
{Expired Frame Count(Fibre),30,50},
{Link Failure Count(FCoE),0,0},
{Virtual Link Failure Count(FCoE),50,5},
{Symbol Error Count(FCoE),60,5},
{FCS Error Count(FCoE),0,0},
{HTP/FNP Ex Multiple(FICON),0,0},
{HTP/FNP Read Data Transfer Rate(FICON),0,0},
{HTP/FNP Write Data Transfer Rate(FICON),0,0},
{HTP/FNP Processing Rate(FICON),0,0},
{Read Hit Rate,0,0}],
Num. of Items=22
```

Detailed Information

Item	Description
Item	Process monitoring item
Threshold	Threshold for each process monitoring item
Term	Period in which the threshold continues to be exceeded
Num. of Items	Number of the process monitoring items

Performance Monitor Descriptions

[PFM] DCR Prestaging

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PFM],DCR Prestaging,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[PFM] Delete M/F DCR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PFM],Delete M/F DCR,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Start CC-HH,End CC-HH}
=[{0x00:0x00:0x00,XXXXXX-XX,XXXXXX-XX},
{0x00:0x00:0x00,XXXXXX-XX,XXXXXX-XX}],
Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume (for a mainframe system) where the setting information of Cache Residency cache is canceled.
Start CC-HH	The starting cylinder number (CC) and the starting head number (HH) of the cancelled data
End CC-HH	The ending cylinder number (CC) and the ending head number (HH). This number is output when the ending cylinder and ending head are specified for the cancelled data.
Num. of LDEVs	The number of logical volumes (for a mainframe system) where the setting information of Cache Residency cache is cancelled

[PFM] Delete Open DCR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PFM],Delete Open DCR,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Start LBA,End LBA}
=[{0x00:0x00:0x00,XXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX},
{0x00:0x00:0x00,XXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX}],
Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume (for an open system) where the setting information of Cache Residency cache is canceled.
Start LBA	The starting LBA number of the cancelled data.
End LBA	The ending LBA number of the cancelled data. This number is output when only the ending LBA is specified for the cancelled data.
Num. of LDEVs	The number of logical volumes (for an open system) where Cache Residency cache is canceled.

[PFM] Delete Unused WWNs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PFM],Delete Unused WWNs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[PFM] Edit CU Monitor Mode

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PFM],Edit CU Monitor Mode,Enable,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+[LDKC:CU] = [0x00:0x00,0x00:0x01,0x00:0x02],Num. of CUs = 3
```

Basic Information

Parameter	Description
Enable	The monitored CU is enabled

Detailed Information

Item	Description
LDKC:CU	The ID of the monitored CU The logical DKC number and the CU number are separated by colons and arranged in this order.

[PFM] Edit Monitoring SW

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PFM],Edit Monitoring SW,
Enable 60sec,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

Basic Information

Parameter	Description
Enable XXsec	Monitoring is enabled and the gathering interval is set as XX sec
Disable	Monitoring is disabled

[PFM] Edit WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PFM],Edit WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Update Mode,HBA WWN,Change WWN Name,Change HBA WWN}
=[{Change HBA WWN,0xXXXXXXXXXXXXXXXX,,0xXXXXXXXXXXXXXXXX},
{Change WWN Name,0xXXXXXXXXXXXXXXXX,
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX,
}],Num. of WWNs=2
```

Detailed Information

Item	Description
Update Mode	The changing mode of WWN. Change HBA WWN: Change of HBA WWN, Change WWN Name: Change of WWN name.
HBA WWN	The name of HBA WWN.
Change WWN Name	The new WWN name (if changed)
Change HBA WWN	The name of changed HBA WWN.

Item	Description
Num. of WWNs	The number of changed WWNs.

[PFM] Edit WWN MonitorMode

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PFM],Edit WWN MonitorMode,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Mode,HBA WWN,WWN Name}={Add WWN,0xXXXXXXXXXXXXXXX,
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX},
++Port=[XX],Num. of Ports=1,
-Num. of WWNs=1
```

Detailed Information

Item	Description
Mode	The setting mode of WWN Add WWN: Addition of HBA WWN, Delete WWN: Deletion of HBA WWN
HBA WWN	The HBA WWN
WWN Name	The WWN name
Port	The name of a target port
Num. of Ports	The number of target ports for the added or deleted WWN
Num. of WWNs	The number of added or deleted WWNs

[PFM] Set M/F DCR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PFM],Set M/F DCR,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Mode,Prestaging,Start CC-HH,End CC-HH}
=[{0x00:0x00:0x00,Bind,No,XXXXXX-XX,XXXXXX-XX},
{0x00:0x00:0x00,Priority,Yes,XXXXXX-XX,XXXXXX-XX}],
Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume (for a mainframe system) where the setting information of Cache Residency cache is added or changed.

Item	Description
Mode	The setting mode of Cache Residency cache Bind: Bind, Priority: Priority
Prestaging	The prestaging target No: No (disables the prestaging mode) Yes: Yes (enables the prestaging mode)
Start CC-HH	The starting cylinder number (CC) and the starting head number (HH) of the data resident in Cache Residency cache
End CC-HH	The ending cylinder number (CC) and the ending head number (HH) of the data resident in Cache Residency cache
Num. of LDEVs	The number of logical volumes (for a mainframe system) where the setting information of Cache Residency cache is added or changed

[PFM] Set Open DCR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PFM],Set Open DCR,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Mode,Prestaging,Start LBA,End LBA}
=[{0x00:0x00:0x00,Bind,No,XXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX}],
Num. of LDEVs=1
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume (for an open system) where the setting information of Cache Residency cache is added or changed.
Mode	The setting mode of Cache Residency cache Bind: Bind, Priority: Priority
Prestaging	The prestaging target. No: No (disables the prestaging mode) Yes: Yes enables the prestaging mode
Start LBA	The starting LBA number of the data resident in Cache Residency cache
End LBA	The ending LBA number of the data resident in Cache Residency cache
Num. of LDEVs	The number of logical volumes (for an open system) where the setting information of Cache Residency cache is added or changed.

Program Product Key (PP KEY) Descriptions

[PP KEY] PP Apply

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PP KEY],PP Apply,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{P.P.Name,Result}
=[{Cache Residency Manager,Normal end},
{Cache Residency Manager for Mainframe,Normal end},
{Compatible PAV,Normal end},{Compatible Hyper PAV,Normal end},
{Data Retention Utility,Normal end},
{Volume Retention Manager,Normal end},
{Dynamic Provisioning,Normal end},
{Dynamic Tiering,Normal end},
{Dynamic Provisioning for Mainframe,Normal end},
{Dynamic Tiering for Mainframe,Normal end},
{Thin Image,Normal end},
{Open Volume Management,Normal end},
{LUN Manager,Normal end},
-{Performance Monitor,Normal end},
{Server Priority Manager,Normal end},
{Volume Migration,Normal end},{Volume Migration V2,Normal end},
{ShadowImage,Normal end},{ShadowImage for Mainframe,Normal end},
{Compatible FlashCopy(R) V2,Normal end},
{Compatible Software for IBM(R) FlashCopy(R) SE,Normal end},
{HDvM/Storage Navigator,Normal end},{SNMP Agent,Normal end},
{JAVA API,Normal end},{TrueCopy,Normal end},
{Universal Replicator,Normal end},
{TrueCopy for Mainframe,Normal end},
-{Universal Replicator for Mainframe,Normal end},
{Disaster Recovery Extended,Normal end},
{Universal Volume Manager,Normal end},{Virtual LVI,Normal end},
{Virtual Partition Manager,Normal end},
{Volume Shredder,Normal end},{Compatible XRC,Normal end},
{FICON(R) Data Migration,Normal end},
{Compatible High Performance Connectivity for FICON(R),
Normal end},
{SMI-S Provider,Normal end},
{Resource Partition Manager,Normal end}],Num. of PPs=38
```

Detailed Information

This log information is output when the setting task of the program product (Install/Remove or Enable/Disable Licenses) is complete. The information of all of the program products is sent to the storage system, so the names of all of these appear in the log.

Item	Description
P.P.Name	The program product name
Result	The check result of the program product Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end

Item	Description
	xxxxx: Part code, *yyyyyy*: Error code
Num. of PPs	The number of program products

[PP KEY] PP Disable chk

This log information merely indicates that the GUI operation of disabling a license key is complete, and it does not necessarily mean that the license key is actually disabled.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PP KEY],PP Disable chk,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{P.P.Name,Result}=[{JAVA API,Normal end}],Num. of PPs=1
```

Detailed Information

Item	Description
P.P.Name	The name of the program product to be disabled
Result	The check result of the program product to be disabled Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of PPs	The number of program products to be disabled

[PP KEY] PP Enable chk

This log information merely indicates that the GUI operation of enabling a license key is complete, and it does not necessarily mean that the license key is actually enabled.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PP KEY],PP Enable chk,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{P.P.Name,Result}=[{JAVA API,Normal end}],Num. of PPs=1
```

Detailed Information

Item	Description
P.P.Name	The name of the program product to be enabled
Result	The check result of the program product to be enabled Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code

Item	Description
Num. of PPs	The number of program products to be enabled

[PP KEY] PP Install chk

This log information merely indicates that the GUI operation of installing a program product is complete, and it does not necessarily mean that the program product is actually installed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PP KEY],PP Install chk,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Key Code
=XXXX
```

Detailed Information

Item	Description
File Name	The name of the license key file used for installation
P.P.Name	The name of the program product to be installed
Result	The result of file check in the installation. Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of PPs	The number of program products to be installed

[PP KEY] PP Removal chk

This log information merely indicates that the GUI operation of uninstalling a program product is complete, and it does not necessarily mean that the program product is actually uninstalled.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PP KEY],PP Removal chk,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{P.P.Name,Result}=[{JAVA API,Normal end}],Num. of PPs=1
```

Detailed Information

Item	Description
P.P.Name	The name of the program product to be uninstalled
Result	The check result of the uninstallation Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of PPs	The number of program products to be uninstalled

[PP KEY] Update License

This log information merely indicates that the GUI operation of updating a license status is complete, and it does not necessarily mean that the license status is actually updated.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PP KEY],Update License,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{P.P.Name,Result}=[{JAVA API,Normal end}],Num. of PPs=1
```

Detailed Information

Item	Description
P.P.Name	The name of the program product whose license status is to be updated
Result	The result of the license status update Normal end: Normal end, Error(*xxxxx-yyyyyy*): Abnormal end *xxxxx*: Part code, *yyyyyy*: Error code
Num. of PPs	The number of program products whose license statuses are to be updated

Provisioning Descriptions

[PROV] Add Hosts

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Add Hosts,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,WWN,Nickname}
=[{XX,0xXXX,0xXXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX},
{XX,0xXXX,0xXXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXXX}],Num. of WWNs=2
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs
HostGrpID	The host group number where the host is registered
WWN	Indicates WWN of the host bus adapter for the host registered in the host group. WWN is a 16-digit number in the hexadecimal format.
Nickname	The nickname of the host bus adapter for the host registered in the host group
Num. of WWNs	The number of registered hosts (WWN)

[PROV] Add LUN Paths

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Add LUN Paths,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,LUN,LDKC:CU:LDEV}
=[{XX,0xXXX,XXXX,0xXX:0xXX:0xXX},
{XX,0xXXX,XXXX,0xXX:0xXX:0xXX},
{XX,0xXXX,XXXX,0xXX:0xXX:0xXX}],Num. of Paths=3
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs
HostGrpID	The host group number linked to the logical volume
LUN	Indicates LUN of the logical volume linked to the host group
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume linked to the host group
Num. of Paths	The number of LU paths set

[PROV] Assign MP Blade

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Assign MP Blade,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,MP Blade ID,Result}
=[{0xXX:0xXX:0xXX,0xX,Normal end},
{0xXX:0xXX:0xXX,0xX,Normal end}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number
MP Blade ID	The MP Blade ID of the migration target
Result	The result of operation Normal end: Normal end, Error(*xxxx*-*yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of specified logical volumes

[PROV] Block LDEVs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Block LDEVs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC:CU:LDEV=[0x00:0x00:0x01,0x00:0x00:0x02,0x00:0x00:0x03,
0x00:0x00:0x04,0x00:0x00:0x05,0x00:0x00:0x06,0x00:0x00:0x07,
0x00:0x00:0x08,0x00:0x00:0x09,0x00:0x00:0x0A],
Num. of LDEVs=10
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs being blocked

[PROV] Complete SIMs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Complete SIMs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+SIM=[0x600000,0x600001,0x60000F],Num. of SIMs=3
```

Detailed Information

Item	Description
SIM	The reference code of the Service Information Message (SIM) generated in the storage system with resolved errors or service request status. No SIM reference code appears if the SIM cannot be completed due to the unsatisfied requirements. 0xXXXXXX: Reference code of the SIM
Num. of SIMs	The number of SIMs with resolved errors and service request status

[PROV] Create Host Groups

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Create Host Groups,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,HostGrpName}=[{XX,0xXXX,XXXXXXXXXXXXXXXX},
{XX,0xXXX,XXXXXXXXXXXXXXXX}],Num. of Host Groups=2
```

Detailed Information

Item	Description
Port	The name of the port where the host group has been added
HostGrpID	The host group number newly added
HostGrpName	The name of the host group newly added
Num. of Host Groups	The number of host groups added

[PROV] Create LDEVs

Example 1: Creating internal volumes or external volumes

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Create LDEVs,Basic,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PG,LDKC:CU:LDEV,Start LBA,Emulation,Size,Unit,MP Blade ID}
=[{XX-XX,0xXX:0xXX:0xXX,XXXXXXXX,OPEN-V,XXXXXXXX,KB,Auto},
{XX-XX,0xXX:0xXX:0xXX,XXXXXXXX,OPEN-V,XXXXXXXX,KB,0xX}],
Num. of LDEVs=2
```

Basic Information for Example 1

Parameter	Description
Basic	Create LDEVs was done to basic volumes
External	Create LDEVs was done to external volumes
Basic/External	Create LDEVs was done to both basic volumes and external volumes

Detailed Information for Example 1

Item	Description
PG	The parity group number. An E at the beginning of a parity group number designates an external volume is present in that parity group.
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers
Start LBA	The start LBA. A hyphen (-) is output when not specified.
Emulation	The emulation type
Size	The user-specified capacity
Unit	The unit of the CV capacity. LBA is displayed. This capacity value can be converted into kilobytes by dividing by two because one block is 512 bytes. For information about how to convert the capacity value into cylinders, see the section describing size calculation in *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Mainframe Systems*.
MP Blade ID	The specified MP blade ID. "Auto" indicates the processor blade number is set automatically.
Num. of LDEVs	The number of LDEVs

Example 2: Creating Thin Image volumes

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Create LDEVs,Snapshot,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+{Pool ID,LDKC:CU:LDEV,LDEVCapa(blocks),Emulation,CLPR,SSID,
MP Blade ID,Result}=[{-,0x00:0x00:0x00,96000,OPEN-V,0,0x0004,
Auto,Normal end},{-,0x00:0x01:0x00,96000,OPEN-V,0,0x0005,Auto,
Normal end}],Num.of LDEVs=2
```

Example 3: Creating DP-VOLs

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Create LDEVs,Thin Provisioning,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,LDKC:CU:LDEV,LDEVCapa(blocks),Emulation,CLPR,SSID,
MP Blade ID,Attribute,Full Allocation,Result}
=[{1,0x00:0x00:0x00,96000,OPEN-V,0,0x0004,Auto,-,Enable,Normal end},
{1,0x00:0x01:0x00,96000,OPEN-V,0,0x0005,Auto,-,Disable,Normal end}],
Num.of LDEVs=2
```

Basic Information for Example 2 and 3

Item	Description
Snapshot	Operating for the Thin Image volumes.
Thin Provisioning	Operating for the Dynamic Provisioning virtual volumes.

Detailed Information for Example 2 and 3

Item	Description
Pool ID	The pool ID of a related pool volume For a Snapshot volume, a hyphen (-) is output, because you specify no setting about a related volume when you create V-Vols for Snapshot.
LDKC:CU:LDEV	The logical DKC, CU, and LDEV numbers of the created V-Vols These numbers are separated by colons and arranged in this order.
LDEVCapa (blocks)	The capacity of the created V-Vols in blocks
Emulation	The emulation type of the created V-Vol
CLPR	The CLPR number of the created V-Vol
SSID	The SSID
MP Blade ID	MP Blade ID specified for the V-Vol. When an MP Blade ID is specified automatically, "Auto" is output.
Attribute	Indicates the attribute of the created V-VOLs. TSE: TSE attribute, -: No attribute This item is output for Dynamic Provisioning volumes only.
Full Allocation	Indicates the setting status of the Full Allocation Enable: Full Allocation is enabled. Disable: Full Allocation is disabled. This item is output for Dynamic Provisioning volumes only.

Item	Description
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of created V-Vols

[PROV] Create Resource Grps

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Create Resource Grps,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{VDKC-Box ID,Resource Group ID,Resource Group Name,Result}
=[{0,1,RSG1,Normal end},{0,2,RSG2,Normal end}],
Num. of Resource Groups=2
```

Detailed Information

Item	Description
VDKC-Box ID	The number of the VDKC-Box to which the created resource group belongs. A hyphen (-) is output when the creating operation failed.
Resource Group ID	The number of the created resource group. A hyphen (-) is output when the creating operation failed
Resource Group Name	The resource group name of the created resource group
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Resource Groups	The number of created resource groups

[PROV] Create VDKC-Box

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Create VDKC-Box,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{VDKC-Box ID,Model,SerialNo,Result}
={1,0x0400,28528,Normal end}
++{VDKC-Box ID,Resource Group ID,Resource Group Name,Result}
=[{1,1,RSG1,Normal end},{1,2,RSG2,Normal end}],
Num. of Resource Groups=2
```

Detailed Information

Item	Description
VDKC-Box ID	The number of the created VDKC-Box. A hyphen (-) is output when the creating operation failed.
Model	The model of the created VDKC-Box
SerialNo	The serial number of the created VDKC-Box
Result	The result of the VDKC-Box operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
VDKC-Box ID	The number of the VDKC-Box to which the created resource group belongs. A hyphen (-) is output when the creating operation failed.
Resource Group ID	The number of the created resource group. A hyphen (-) is output when the creating operation failed.
Resource Group Name	The resource group name of the created resource group
Result	The result of the resource group operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Resource Groups	The number of created resource groups

[PROV] Create/Expand Pools

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Create/Expand Pools,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Pool Type,Multi Tier Pool,Warning Threshold(%),
Depletion Threshold(%),Subscription Limit(%),
Protect V-VOLs when I/O fails to Full Pool,
Protect V-VOLs when I/O fails to Blocked Pool VOL,
Tier Management,Cycle Time,Monitoring Period,Monitoring Mode,
Relocation Speed,Pool Result}
=[{1,Dynamic Provisioning,Enable,20,70,100,Yes,Yes,Auto,24,
00:00-23:59,Continuous Mode,3,Normal end}],Num. of Pools=1
++{LDKC:CU:LDEV,External LDEV Tier Rank,LDEV Result}
=[{0x00:0x00:0x00,Middle/Internal,Normal end},
{0x00:0x00:0x01,Middle/Internal,Normal end},
{0x00:0x00:0x02,Middle/Internal,Normal end}],Num. of LDEVs=3
```

Detailed Information

Item	Description
Pool ID	The pool ID of the created or expanded pool
Pool Type	The pool type.

Item	Description
	Dynamic Provisioning: Dynamic Provisioning, Thin Image: Thin Image
Multi Tier Pool	Indicates whether the multi-tier mode of the pool is enabled or disabled. Enable: Enabled, Disable: Disabled If Pool Type is Thin Image, a hyphen (-) is output.
Warning Threshold(%)	The warning threshold of the usage rate of the pool. The unit is indicated as a percentage.
Depletion Threshold(%)	The depletion threshold of the usage rate of the pool. The unit is indicated as a percentage. If Pool Type is Thin Image, or if the depletion threshold is not specified, a hyphen (-) is output.
Subscription Limit(%)	The reserve amount of the pool. The unit is percent (%). If the reserve amount is not specified, it outputs "Unlimited". If Pool Type is Thin Image, a hyphen (-) is output.
Protect V-VOLs when I/O fails to Full Pool	Indicates whether the setting of the protect access attribute on the virtual volume is enabled or disabled when the pool is full. Yes: Enabled, No: Disabled If the pool type is not Dynamic Provisioning or the pool is not a pool for an open system, a hyphen (-) is output.
Protect V-VOLs when I/O fails to Blocked Pool VOL	Indicates whether the setting of the protect access attribute on the virtual volume is enabled or disabled when the pool is blocked. Yes: Enabled, No: Disabled If the pool type is not Dynamic Provisioning or the pool is not a pool for an open system, a hyphen (-) is output.
Tier Management	The auto control mode of the pool Auto: Auto, Manual: Manual If Multi Tier Pool is anything other than Enable, a hyphen (-) is output.
Cycle Time	The cycle of performance monitoring for the pool 0.5: every thirty minutes, 1: every one hour, 2: every two hours, 4: every four hours, 8: every eight hours, 24: every twenty-four hours If Tier Management is anything other than Auto, a hyphen (-) is output.
Monitoring Period	The monitoring period of the pool. Format: "H1:M1-H2:M2" H1: The time when the monitoring starts (hour) M1: The time when the monitoring starts (minute) H2: The time when the monitoring ends (hour) M2: The time when the monitoring ends (minute). If Cycle Time is anything other than 24, a hyphen (-) is output.
Monitoring Mode	The monitoring mode Continuous Mode: Continuous mode, Period Mode: Period mode

Item	Description
	If Multi Tier Pool is anything other than Enable, a hyphen (-) is output.
Relocation Speed	The relocation speed 1: Slowest, 2: Slower, 3: Normal, 4: Faster, 5: Fastest
Pool Result	The result of the operation. Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of pools
LDKC:CU:LDEV	The LDKC number, the CU number and the LDEV number of the pool volume assigned to the pool
External LDEV Tier Rank	The external LDEV tier rank of the pool volume assigned to the pool High: An external volume (High) Middle/Internal: An external volume (Middle) or an internal volume Low: An external volume (Low)
LDEV Result	The result of the operation per pool volume Normal end: Normal end, Error(*xxxx-yyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyy*: Error code
Num. of LDEVs	The number of pool volumes.

[PROV] CreateAlus

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],CreateAlus,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Alus[0]{
  LdevId=0x00:0x00:0xBC,Result=Normal end,Ssid=0x0004,MpBladeId=Auto,
  Clpr{
    Id=0},
  Id="60-06-0E-81-30-76-D9-30-76-D9-00-00-00-00-00-BC"}}
```

Detailed Information

Item		Description
Alus[x]		The setting information of the created LDEV with the ALU attribute
	LdevId	The LDEV ID
	Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed

Item		Description
		xxxx: Part code, *yyyyy*: Error code
	Ssid	The SSID
	MpBladeId	The MP Blade ID "Auto" indicates the auto assignment is enabled.
	Clpr	The CLPR setting information
	Id	The CLPR number
	Id	The ALU ID

[PROV] CreateSlus

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],CreateSlus,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Slus[0]{
  LdevId=0x00:0x00:0xBC,Result=Normal end,Capacity=8388608,
  Ssid=0x0004,MpBladeId=Auto,
  Clpr{
    Id=0},
  Pool{
    Id=9},
  Id="60-06-0E-81-30-76-D9-30-76-D9-00-00-00-00-00-BC",
  FullAllocation=false}}
```

Detailed Information

Item		Description
Slus[x]		The setting information of the created LDEV with the SLU attribute
	LdevId	The LDEV ID
	Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
	Capacity	The capacity
	Ssid	The SSID
	MpBladeId	The MP Blade ID "Auto" indicates the auto assignment is enabled.
	Clpr	The CLPR setting information
	Id	The CLPR number
	Pool	The pool setting information

Item	Description
Id	The pool number
Id	The SLU ID
FullAllocation	Indicates the setting status of the Full Allocation true: Full Allocation is enabled. false: Full Allocation is disabled.

[PROV] CreateTiVolumes

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],CreateTiVolumes,,Normal end,from=xxxx:xxxx:xxxx:xxxx:xxxx:
xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{TiVolumes[0]{
  LdevId=0x00:0x00:0xBC,Result=Normal end,Capacity=8388608,
  Ssid=0x0004,MpBladeId=Auto,
  Clpr{
    Id=0}}}
```

Detailed Information

Item	Description
TiVolumes[x]	The setting information of the created secondary volume for Thin Image
LdevId	The LDEV ID
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
Capacity	The capacity
Ssid	The SSID
MpBladeId	The MP Blade ID "Auto" indicates the auto assignment is enabled.
Clpr	The CLPR setting information
Id	The CLPR number

[PROV] Delete Host Groups

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete Host Groups,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+{Port,HostGrpID}
=[{XX,0xXXX},{XX,0xXXX}],Num. of Host Groups=2
```

Detailed Information

Item	Description
Port	The name of the port to which the deleted or initialized host group belonged
HostGrpID	The host group number deleted or initialized
Num. of Host Groups	The number of host groups deleted or initialized

[PROV] Delete LDEVs

Example 1: Deleting internal volumes or external volumes

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete LDEVs,Basic,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PG,LDKC:CU:LDEV}
=[{XX-XX,0xXX:0xXX:0xXX},{XX-XX,0xXX:0xXX:0xXX}],
Num. of LDEVs=2
```

Basic Information for Example 1

Parameter	Description
Basic	Delete LDEVs was done to basic volumes
External	Delete LDEVs was done to external volumes
Basic/External	Delete LDEVs was done to both basic volumes and external volumes

Detailed Information for Example 1

Item	Description
PG	The parity group number. An E at the beginning of a parity group number designates an external volume is present in that parity group.
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers
Num. of LDEVs	The number of LDEVs

Example 2: Deleting Thin Image volumes

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete LDEVs,Snapshot,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV, Result}=[{0x00: 0x00: 0x00, Normal end},
{0x00: 0x01: 0x00, Normal end},
```

```
{0x00: 0x02: 0x00, Normal end}],
Num. of LDEVs=3
```

Example 3: Deleting DP-VOLs

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete LDEVs,Thin Provisioning,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV, Result}=[{0x00: 0x00: 0x00, Normal end},
{0x00: 0x01: 0x00, Normal end},
{0x00: 0x02: 0x00, Normal end}],
Num. of LDEVs=3
```

Basic Information for Example 2 and 3

Item	Description
Snapshot	Operating for the Thin Image volumes.
Thin Provisioning	Operating for the Dynamic Provisioning virtual volumes.

Detailed Information for Example 2 and 3

Item	Description
LDKC:CU:LDEV	The logical DKC, CU, and LDEV numbers of the deleted V-Vols These numbers are separated by colons and arranged in this order.
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of deleted V-Vols

[PROV] Delete Login WWNs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete Login WWNs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Delete WWN}
=[{XX,0xXXXXXXXXXXXXXXXX},{XX,0xXXXXXXXXXXXXXXXX}],
Num. of WWNs=2
```

Detailed Information

Item	Description
Port	The port name where the host of deleted WWN was connected
Delete WWN	The deleted WWN. WWN is a 16-digit number in the hexadecimal format.

Item	Description
Num. of WWNs	The number of WWNs deleted

[PROV] Delete LUN Paths

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete LUN Paths,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,LUN}
=[{XX,0xXXX,XXXX},{XX,0xXXX,XXXX},{XX,0xXXX,XXXX}],
Num. of Paths=3
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs
HostGrpID	The host group number where the LU path is deleted
LUN	Indicates LUN where the LU path assignment is cancelled
Num. of Paths	The number of LU paths deleted

[PROV] Delete Resource Grps

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete Resource Grps,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{VDKC-Box ID,Resource Group ID,Result}
=[{0,1,Normal end},{0,2,Normal end}],Num. of Resource Groups=2
```

Detailed Information

Item	Description
VDKC-Box ID	The number of the VDKC-Box to which the deleted resource group belongs
Resource Group ID	The number of the deleted resource group
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Resource Groups	The number of deleted resource groups

[PROV] Delete VDKC-Box

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Delete VDKC-Box,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{VDKC-Box ID,Result}={1,Normal end},Num. of VDKC-Boxes=1
```

Detailed Information

Item	Description
VDKC-Box ID	The number of the deleted VDKC-Box
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of VDKC-Boxes	The number of deleted VDKC-Boxes

[PROV] DeleteAlus

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],DeleteAlus,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Alus[0]{
  Id="60-06-0E-81-30-76-D9-30-76-D9-00-00-00-00-00-49",
  Result=Normal end,LdevId=0x00:0x00:0x49}}
```

Detailed Information

Item		Description
Alus[x]		The setting information of the deleted LDEV with the ALU attribute
	Id	The ALU ID
	Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
	LdevId	The LDEV ID

[PROV] DeleteSlus

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],DeleteSlus,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Slus[0]{
  Id="60-06-0E-81-30-76-D9-30-76-D9-00-00-00-00-00-49",
  Result=Normal end,LdevId=0x00:0x00:0x49}}
```

Detailed Information

Item		Description
Slus[x]		The setting information of the deleted LDEV with the SLU attribute
	Id	The SLU ID
	Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
	LdevId	The LDEV ID

[PROV] DeleteTiVolumes

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],DeleteTiVolumes,,Normal end,from=xxxx:xxxx:xxxx:xxxx:xxxx:
xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{TiVolumes[0]{
  LdevId=0x00:0x10:0x00,Result=Normal end}}
```

Detailed Information

Item		Description
TiVolumes[x]		The setting information of the deleted secondary volume for Thin Image
	LdevId	The LDEV ID
	Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code

[PROV] DRU Expiration-Lock

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],DRU Expiration-Lock,SYSTEM:Enable,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

Basic Information

Parameter	Description
SYSTEM:Enable	The expiration-lock setting is enabled in the storage system
SYSTEM:Disable	The expiration-lock setting is disabled in the storage system

[PROV] Edit Cmd Dev(Auth)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Cmd Dev(Auth),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,UserAuth}=[{0xXX:0xXX:0xXX,Disable},
{0xXX:0xXX:0xXX,Enable}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume where the command device authentication setting is changed
UserAuth	Indicates whether the command device authentication setting is enabled or disabled. Disable or Enable will appear.
Num. of LDEVs	The number of logical volumes where the command device authentication setting is changed

[PROV] Edit Cmd Dev(DevGrp)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit DevGrpDef,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,DevGrpDef}
=[{0xXX:0xXX:0xXX,Disable},{0xXX:0xXX:0xXX,Enable}],
Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume where the device groups setting is changed
DevGrpDef	Indicates whether the device groups setting is enabled or disabled. Disable or Enable will appear
Num. of LDEVs	The number of logical volumes where the device groups setting is changed

[PROV] Edit Cmd Dev(Sec)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit CommandDevSec,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,CommandDevSec}
=[{0xXX:0xXX:0xXX,Disable},{0xXX:0xXX:0xXX,Enable}],
Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume where the command device security setting is changed
CommandDevSec	Indicates whether the command device security setting is enabled or disabled. Disable or Enable will appear.
Num. of LDEVs	The number of logical volumes that the command device security setting is changed

[PROV] Edit Command Devices

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Command Devices,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,CommandDev}=[{0xXX:0xXX:0xXX,Disable},
{0xXX:0xXX:0xXX,Enable}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume where the command device setting is changed

Item	Description
CommandDev	Indicates whether the command device setting is enabled or disabled. Disable or Enable will appear.
Num. of LDEVs	The number of logical volumes where the command device setting is changed

[PROV] Edit DRU Attribute

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Edit DRU Attribute,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Attribute,RT,Result}
=[{0x00:0x00:0x01,0x80,100,Normal end},
{0x00:0x00:0x02,0x82,Unlimited,Error(9605-8122)},
{0x00:0x00:0x03,0x81,200,Normal end},
{0x00:0x00:0x03,0x81,xxxx,Normal end}],
Num. of LDEVs=XXX
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the logical volume where the attribute is set
Attribute	The set attribute in hexadecimal. Each bit (0–7) of 1 byte corresponds to the setting item. 1 is assigned to each bit when the setting is enabled and 0 (zero) is assigned to each bit when the setting is disabled. Each bit represents the following attributes: • Bit 0: Mounting of LEDV (fixed to 1) • Bit 1: Setting of S-VOL Disable • Bit 2: Setting of Zero Read Cap mode • Bit 3: Setting of Invisible mode • Bit 4: Setting of reserve • Bit 5: Fixed to 0 (zero)* • Bit 6: Setting of Read Only attribute* • Bit 7: Setting of Protect attribute* When 0x88 is output to the attribute, for example, Read/Write attribute is set to the logical volume to show that the reserve setting has been enabled. A hyphen (-) is output when a setting is not changed.
RT	The number of days set in Retention Term. A hyphen (-) is output when setting is not changed.
Result	The result of operation Normal end: Normal end,

Item	Description
	Error(*xxxx-yyyyy*): Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of logical volumes where the attribute has been set
*When bit 5, 6, and 7 are all 0 (zero), Read/Write has been set.	

[PROV] Edit Full Allocation

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Full Allocation,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,LDKC:CU:LDEV,Full Allocation,Result}
=[{0,0x00:0x00:0x00,Enable,Normal end}],Num. of VOLs=1
```

Detailed Information

Item	Description
Pool ID	The pool ID associated with the virtual volume of Dynamic Provisioning
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the virtual volume of Dynamic Provisioning
Full Allocation	Indicates the setting status of the Full Allocation Enable: Full Allocation is enabled. Disable: Full Allocation is disabled.
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of VOLs	The number of virtual volumes of Dynamic Provisioning whose page reservation settings were changed

[PROV] Edit Host

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Host,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,WWN,Change WWN,Change Nickname}
=[{XX,0xXXX,0xXXXXXXXXXXXXXXXX,0xXXXXXXXXXXXXXXXX,
XXXXXXXXXXXXXXXX}],
Num. of WWNs=1
```

Detailed Information

Item	Description
Port	The name of the port where the host is connected
HostGrpID	The host group number on which the host with WWN or nickname of the host bus adapter being changed is registered
WWN	Indicates WWN of the host bus adapter before change. WWN is represented in hexadecimal
Change WWN	Indicates WWN of the host bus adapter after change
Change Nickname	The nickname of the host bus adapter after change
Num. of WWNs	The number of host bus adapters (WWN) where the settings have been changed

[PROV] Edit Host Grps(Mode)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Host Grps(Mode),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,Mode,Option[0:31],Option[32:63],Option[64:95],
Option[96:127]}
=[{XX,0xXXX,0x00,0x20000000,0x00000000,0x00000000,0x00000000},
{XX,0xXXX,0x09,0x00080000,0x00000000,0x00000000,0x00000000}],
Num. of Host Groups=2
```

Item	Description
Port	The name of the port to which the host group belongs.
HostGrpID	The host group number where the host group names have been changed.
Mode	The specified host mode. See the *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Open Systems* for the meaning of the host mode number.
Option[0:31] Option[32:63] Option[64:95] Option[96:127]	The specified host mode option. 128 host mode options from 0 to 127 are output in groups of 32 options. The following tables show the output values corresponding to the host mode options. See the *Hitachi Virtual Storage Platform G1000 Provisioning Guide for Open Systems* for the meaning of the host mode options.
Num. of Host Groups	The number of host groups that the host mode setting is changed.

Table 4-1 Host mode option 0 to 31 and output contents of Option[0:31]

Host mode option	Value of Option[0:31]	Host mode option	Value of Option[0:31]
0	0x80000000	16	0x00008000
1	0x40000000	17	0x00004000
2	0x20000000	18	0x00002000
3	0x10000000	19	0x00001000
4	0x08000000	20	0x00000800
5	0x04000000	21	0x00000400
6	0x02000000	22	0x00000200
7	0x01000000	23	0x00000100
8	0x00800000	24	0x00000080
9	0x00400000	25	0x00000040
10	0x00200000	26	0x00000020
11	0x00100000	27	0x00000010
12	0x00080000	28	0x00000008
13	0x00040000	29	0x00000004
14	0x00020000	30	0x00000002
15	0x00010000	31	0x00000001

Table 4-2 Host mode option 32 to 63 and output contents of Option[32:63]

Host mode option	Value of Option[32:63]	Host mode option	Value of Option[32:63]
32	0x80000000	48	0x00008000
33	0x40000000	49	0x00004000
34	0x20000000	50	0x00002000
35	0x10000000	51	0x00001000
36	0x08000000	52	0x00000800
37	0x04000000	53	0x00000400
38	0x02000000	54	0x00000200
39	0x01000000	55	0x00000100
40	0x00800000	56	0x00000080
41	0x00400000	57	0x00000040
42	0x00200000	58	0x00000020
43	0x00100000	59	0x00000010

Host mode option	Value of Option[32:63]	Host mode option	Value of Option[32:63]
44	0x00080000	60	0x00000008
45	0x00040000	61	0x00000004
46	0x00020000	62	0x00000002
47	0x00010000	63	0x00000001

Table 4-3 Host mode option 64 to 95 and output contents of Option[64:95]

Host mode option	Value of Option[64:95]	Host mode option	Value of Option[64:95]
64	0x80000000	80	0x00008000
65	0x40000000	81	0x00004000
66	0x20000000	82	0x00002000
67	0x10000000	83	0x00001000
68	0x08000000	84	0x00000800
69	0x04000000	85	0x00000400
70	0x02000000	86	0x00000200
71	0x01000000	87	0x00000100
72	0x00800000	88	0x00000080
73	0x00400000	89	0x00000040
74	0x00200000	90	0x00000020
75	0x00100000	91	0x00000010
76	0x00080000	92	0x00000008
77	0x00040000	93	0x00000004
78	0x00020000	94	0x00000002
79	0x00010000	95	0x00000001

Table 4-4 Host mode option 96 to 127 and output contents of Option[96:127]

Host mode option	Value of Option[96:127]	Host mode option	Value of Option[96:127]
96	0x80000000	112	0x00008000
97	0x40000000	113	0x00004000
98	0x20000000	114	0x00002000
99	0x10000000	115	0x00001000
100	0x08000000	116	0x00000800

Host mode option	Value of Option[96:127]	Host mode option	Value of Option[96:127]
101	0x04000000	117	0x00000400
102	0x02000000	118	0x00000200
103	0x01000000	119	0x00000100
104	0x00800000	120	0x00000080
105	0x00400000	121	0x00000040
106	0x00200000	122	0x00000020
107	0x00100000	123	0x00000010
108	0x00080000	124	0x00000008
109	0x00040000	125	0x00000004
110	0x00020000	126	0x00000002
111	0x00010000	127	0x00000001

When more than one option is set, a logical sum of their values is output. For example, if 0x200C0000 is output to Option[0:31], it means the host mode options [2], [12], and [13] are set.

[PROV] Edit Host Grps(Name)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Host Grps(Name),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,HostGrpName}
=[{XX,0xXXX,XXXXXXXXXXXXXXXX},{XX,0xXXX,XXXXXXXXXXXXXXXX}],
Num. of Host Groups=2
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs
HostGrpID	The host group number where the host group names have been changed
HostGrpName	The name of the host group. If the name is changed, the name after change is indicated
Num. of Host Groups	The number of host groups where the settings have been changed

[PROV] Edit LDEVs(tier)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit LDEVs(tier),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,LDKC:CU:LDEV,Tier Relocation}
=[{1,0x00:0x01:0x0F,Disable}],Num. of LDEVs = 1
```

Detailed Information

Item	Description
Pool ID	The pool number of the edited LDEV
LDKC:CU:LDEV	The LDKC number, CU number and the LDEV number of the edited volume
Tier Relocation	Indicates whether the tier relocation is enabled or disabled. Enable: Enabled, Disable: Disabled
Num. of LDEVs	The number of edited LDEVs

[PROV] Edit LDEV Tier Rank

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit LDEV Tier Rank,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Pool Result}=[{1,Normal end}],Num. of Pools=1
++{LDKC:CU:LDEV,External LDEV Tier Rank,LDEV Result}
=[{0x00:0x00:0x00,Middle/Internal,Normal end},
{0x00:0x00:0x01,Middle/Internal,Normal end},
{0x00:0x00:0x02,Middle/Internal,Normal end}],Num. of LDEVs=3
```

Detailed Information

Item	Description
Pool ID	The number of the pool where the edited pool volumes are assigned
Pool Result	The result of editing pool volumes per pool Normal end: Normal end Error(*xxxx-yyyyy*): Abnormal end Not Execute: Not executed where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of pools whose pool volumes are edited
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the edited pool volume
External LDEV Tier Rank	The external LDEV tier rank of the edited pool volume High: An external volume (High)

Item	Description
	Middle/Internal: An external volume (Middle) or an internal volume Low: An external volume (Low)
LDEV Result	The result of editing pool volumes per pool volume Normal end: Normal end Error(*xxxx-yyyyy*): Abnormal end Not Execute: Not executed where *xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of edited pool volumes

[PROV] Edit MP Blades

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit MP Blades,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{DKC,MP Blade ID,Auto Assignment,Result}
=[{0,0x0,Enable,Normal end}],Num. of MP Blades=1
```

Detailed Information

Item	Description
DKC	The DKC number (0 or 1)
MP Blade ID	The MP Blade number in the DKC module displayed in the window (0 to 7)
Auto Assignment	Indicates whether the auto assignment setting is enabled or disabled. Enable or Disable will appear
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of MP Blades	The number of specified MP Blades (1 to 8)

[PROV] Edit Ports(Address)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Ports(Address),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Fibre Addr.}=[{XX,1},{XX,126}],Num. of Ports=2
```

Detailed Information

Item	Description
Port	The name of the port that the address has been changed
Fibre Addr.	The address of Fibre Channel port after change using the number from 1 to 126. See the following table for relation of number and Fibre Channel port address.
Num. of Ports	The number of ports where address has been changed

Table 4-5 Addresses of Fibre Channel Port

Value	Address*	Value	Address*	Value	Address*	Value	Address*
1	EF (0)	33	B2 (32)	65	72 (64)	97	3A (96)
2	E8 (1)	34	B1 (33)	66	71 (65)	98	39 (97)
3	E4 (2)	35	AE (34)	67	6E (66)	99	36 (98)
4	E2 (3)	36	AD (35)	68	6D (67)	100	35 (99)
5	E1 (4)	37	AC (36)	69	6C (68)	101	34 (100)
6	E0 (5)	38	AB (37)	70	6B (69)	102	33 (101)
7	DC (6)	39	AA (38)	71	6A (70)	103	32 (102)
8	DA (7)	40	A9 (39)	72	69 (71)	104	31 (103)
9	D9 (8)	41	A7 (40)	73	67 (72)	105	2E (104)
10	D6 (9)	42	A6 (41)	74	66 (73)	106	2D (105)
11	D5 (10)	43	A5 (42)	75	65 (74)	107	2C (106)
12	D4 (11)	44	A3 (43)	76	63 (75)	108	2B (107)
13	D3 (12)	45	9F (44)	77	5C (76)	109	2A (108)
14	D2 (13)	46	9E (45)	78	5A (77)	110	29 (109)
15	D1 (14)	47	9D (46)	79	59 (78)	111	27 (110)
16	CE (15)	48	9B (47)	80	56 (79)	112	26 (111)
17	CD (16)	49	98 (48)	81	55 (80)	113	25 (112)
18	CC (17)	50	97 (49)	82	54 (81)	114	23 (113)
19	CB (18)	51	90 (50)	83	53 (82)	115	1F (114)
20	CA (19)	52	8F (51)	84	52 (83)	116	1E (115)
21	C9 (20)	53	88 (52)	85	51 (84)	117	1D (116)
22	C7 (21)	54	84 (53)	86	4E (85)	118	1B (117)
23	C6 (22)	55	82 (54)	87	4D (86)	119	18 (118)
24	C5 (23)	56	81 (55)	88	4C (87)	120	17 (119)
25	C3 (24)	57	80 (56)	89	4B (88)	121	10 (120)
26	BC (25)	58	7C (57)	90	4A (89)	122	0F (121)

Value	Address*	Value	Address*	Value	Address*	Value	Address*
27	BA (26)	59	7A (58)	91	49 (90)	123	08 (122)
28	B9 (27)	60	79 (59)	92	47 (91)	124	04 (123)
29	B6 (28)	61	76 (60)	93	46 (92)	125	02 (124)
30	B5 (29)	62	75 (61)	94	45 (93)	126	01 (125)
31	B4 (30)	63	74 (62)	95	43 (94)	-	-
32	B3 (31)	64	73 (63)	96	3C (95)	-	-
*Addresses outside parentheses indicate arbitrated-loop physical address (AL-PA). Addresses in parentheses indicate loop IDs.							

[PROV] Edit Ports(Attr)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Ports(Attr),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Attribute=RCU Target
++Port=[1E],Num. of Ports=1
```

Detailed Information

Item	Description
Attribute	The attribute of the port after change. Target: Target port, Initiator: Initiator port, RCU Target: RCU Target port, External: External port
Port	The name of the port where the setting is changed.
Num. of Ports	The number of ports where the setting is changed.

[PROV] Edit Ports(Security)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Ports(Security),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Switch}=[{XX,Disable},{XX,Enable}],Num. of Ports=2
```

Detailed Information

Item	Description
Port	The name of the port where the LUN security setting is changed
Switch	Indicates whether the LUN security setting is enabled or disabled.

Item	Description
	Disable or Enable is output
Num. of Ports	The number of ports where the LUN security setting is changed

[PROV] Edit Ports(Speed)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Ports(Speed),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Speed(Gbps)}=[{XX,1},{XX,2},{XX,Auto},{XX,4}],
Num. of Ports=4
```

Detailed Information

Item	Description
Port	The name of the port that the channel speed is set
Speed(Gbps)	The channel speed set 1: 1 Gbps, 2: 2 Gbps, 4: 4 Gbps, 8: 8 Gbps, Auto: Auto mode
Num. of Ports	The number of ports where the channel speed is set

[PROV] Edit Ports(Topology)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Ports(Topology),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Fabric,Connection}=[{XX,Enable,FC-AL},{XX,Disable,FC-AL},
{XX,Enable,P-to-P},{XX,Disable,P-to-P}],Num. of Ports=4
```

Detailed Information

Item	Description
Port	The name of the port where the topology of Fibre Channel is changed.
Fabric	Indicates whether the Fabric switch is enabled or disabled. Disable or Enable is output.
Connection	The connecting mode of the Fabric switch selected. FC-AL: FC-AL is selected, P-to-P: P-to-P is selected
Num. of Ports	The number of ports where the topology of Fibre Channel is changed

[PROV] Edit Resource Grp

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Resource Grp,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{VDKC-Box ID,Resource Group ID,Resource Group Name,Result}
=[{0,1,RSG1,Normal end}],Num. of Resource Groups=1
```

Detailed Information

Item	Description
VDKC-Box ID	The number of the VDKC-Box to which the configured resource group belongs
Resource Group ID	The number of the configured resource group
Resource Group Name	The contents of the setting for the changed resource group name
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of Resource Groups	The number of resource groups that operated the setting

[PROV] Edit SCP Time

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit SCP Time,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{CU,SCP Time(sec.)}=[{0x00,600},{0x01,600},(snip),{0xFE,600}],
Num. of CUs=255
```

Detailed Information

Item	Description
CU	The CU number
SCP Time(sec.)	The SCP (State Change Pending) time in seconds
Num. of CUs	The number of CUs where the SCP time is set

[PROV] Edit Tiering Policy

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit Tiering Policy,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Tiering Policy ID,Tier1 Max(%),Tier1 Min(%),Tier3 Max(%),
Tier3 Min(%),Result}
=[{6,90,10,90,10,Normal end}],Num. of Policies=1
```

Detailed Information

Item	Description
Tiering Policy ID	The tiering policy ID
Tier1 Max(%)	The upper limit threshold value for the Tier1 The threshold value is displayed in the range 0 to 100. The unit is percent (%). This is output when the upper limit threshold value for the Tier1 is set.
Tier1 Min(%)	The lower limit threshold value for the Tier1 The threshold value is displayed in the range 0 to 100. The unit is percent (%). This is output when the lower limit threshold value for the Tier1 is set.
Tier3 Max(%)	The upper limit threshold value for the Tier3 The threshold value is displayed in the range 0 to 100. The unit is percent (%). This is output when the upper limit threshold value for the Tier3 is set.
Tier3 Min(%)	The lower limit threshold value for the Tier3 The threshold value is displayed in the range 0 to 100. The unit is percent (%). This is output when the lower limit threshold value for the Tier3 is set.
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of Policies	The number of tiering policies that was set

[PROV] Edit VR Attribute

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Edit VR Attribute,,Normal end,
```

```
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Attribute,Result}
=[{0x00:0x00:0x00,Protect,Normal end},
{0x00:0x00:0x01,Protect,Normal end}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the volume in which the access attribute is set
Attribute	Indicates the set access attribute Read/Write: The attribute that enables reading and writing Read Only: The attribute that enables reading only Protect: The attribute that disables accessing
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of edited volumes

[PROV] Edit V-VOL Option

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit V-VOL Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,LDKC:CU:LDEV,Tiering Policy ID,
New Page Assignment Tier,Relocation Priority,Result}
=[{0,0x00:0x00:0x00,1,Middle,Default,Normal end}],
Num. of VOLs=1
```

Detailed Information

Item	Description
Pool ID	The pool ID of a pool associated with the V-VOL for Dynamic Provisioning to which Tiering policy is set
LDKC:CU:LDEV	The LDKC number, CU number, and LDEV number of the V-VOL for Dynamic Provisioning
Tiering Policy ID	The Tiering Policy ID This is output when the tiering policy is set.
New Page Assignment Tier	The new page assignment tier Middle: A middle performance tier, High: A high performance tier, Low: A low performance tier This is output when the new page assignment tier is set.
Relocation Priority	The relocation priority information

Item	Description
	Default: Normal, Prioritize: Prioritized This is output when the relocation priority information is set.
Result	The result of the operation. Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
Num. of VOLs	The number of operated V-VOLs for Dynamic Provisioning

[PROV] Edit/Delete Pools

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit/Delete Pools,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Command,Pool ID,Pool Type,Multi Tier Pool,
Protect V-VOLs when I/O fails to Full Pool,
Protect V-VOLs when I/O fails to Blocked Pool VOL,
Tier Management,Cycle Time,Monitoring Period,Monitoring Mode,
Relocation Speed,Result}
=[{Change Tier,1,Dynamic Provisioning,Enable,Yes,Yes,Auto,24,
10:00-11:00,Continuous Mode,3,Normal End}],Num. of Pool=1
++{Tier,Buffer Space for New page assignment(%),
Buffer Space for Tier relocation(%),Tier Result}
=[{1,10,10,Normal end},{2,20,20,Normal end}],Num. of Tiers=2
```

Detailed Information

Item	Description
Command	The operation on the pool Change: Changing pool information about the threshold and the subscription limit Change Tier: Changing information about Dynamic Tiering Delete: Delete pool
Pool ID	The pool ID of the pool where the settings have been changed or the number of the pool that have been deleted
Pool Type	The pool type Dynamic Provisioning: Dynamic Provisioning, Thin Image: Thin Image
Multi Tier Pool	Indicates whether the multi-tier mode of the pool is enabled or disabled. Enable: Enabled, Disable: Disabled This item is output only when "Command" is "Change Tier". If Pool Type is Thin Image, a hyphen (-) is output.

Item	Description
Warning Threshold(%)	The warning threshold of the usage rate of the pool in percent (%). This item is output only when "Command" is "Change".
Depletion Threshold(%)	The depletion threshold of the usage rate of the pool in percent (%). If the depletion threshold is not specified, this percentage is not output. This item is output only when "Command" is "Change". If Pool Type is Thin Image, or if the depletion threshold is not specified, a hyphen (-) is output.
Subscription Limit(%)	The reserve amount of the pool where the setting was changed. The unit is percent (%). If the reserve amount is not specified, it outputs "Unlimited". This item is output only when "Command" is "Change". If Pool Type is Thin Image, a hyphen (-) is output.
Protect V-VOLs when I/O fails to Full Pool	Indicates whether the setting of the protect access attribute on the virtual volume is enabled or disabled when the pool is full. Yes: Enabled, No: Disabled If the pool type is not Dynamic Provisioning or the pool is not a pool for an open system, a hyphen (-) is output.
Protect V-VOLs when I/O fails to Blocked Pool VOL	Indicates whether the setting of the protect access attribute on the virtual volume is enabled or disabled when the pool is blocked. Yes: Enabled, No: Disabled If the pool type is not Dynamic Provisioning or the pool is not a pool for an open system, a hyphen (-) is output.
Tier Management	The auto control mode of the created or expanded pool. Auto: Auto, Manual: Manual This item is output only when "Command" is "Change Tier". If Multi Tier Pool is anything other than Enable, a hyphen (-) is output.
Cycle Time	The cycle of performance monitoring for the pool. 0.5: every thirty minutes, 1: every one hour, 2: every two hours, 4: every four hours, 8: every eight hours, 24: every twenty-four hours This item is output only when "Command" is "Change Tier". If Tier Management is anything other than Auto, a hyphen (-) is output.
Monitoring Period	The monitoring period of the pool. Format: "H1:M1-H2:M2" H1: The time when the monitoring starts (hour) M1: The time when the monitoring starts (minute) H2: The time when the monitoring ends (hour) M2: The time when the monitoring ends (minute). This item is output only when "Command" is "Change Tier". If Cycle Time is anything other than 24, a hyphen (-) is output.
Monitoring Mode	The monitoring mode Continuous Mode: Continuous mode, Period Mode: Period mode This item is output only when "Command" is "Change Tier".

Item	Description
	If Multi Tier Pool is anything other than Enable, a hyphen (-) is output.
Relocation Speed	The relocation speed 1: Slowest, 2: Slower, 3: Normal, 4: Faster, 5: Fastest
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of pools where the settings have been changed or the number of pools that have been deleted
Tier	The tier number
Buffer Space for New page assignment(%)	The capacity rate of buffer space for new page assignment The unit is percent (%) This value is output only when the command is Change Tier
Buffer Space for Tier relocation(%)	The capacity rate of buffer space for Tier relocation The unit is percent (%) This value is output only when the command is Change Tier
Tier Result	The result of Tier operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed where *xxxx*: Part code, *yyyyy*: Error code This value is output only when the command is Change Tier.
Num. of Tiers	The number of Tiers for the created pools This value is output only when the command is Change Tier.

[PROV] Edit/Delete UUIDs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Edit/Delete UUIDs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,UUID}
=[{0xXX:0xXX:0xXX,abcdefg},{0xXX:0xXX:0xXX,12345},
{0xXX:0xXX:0xXX,}],Num. of UUIDs=3
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, CU number, and LDEV number
UUID	The configured UUID. There is no output if the UUID was deleted.

Item	Description
Num. of UUIDs	The number of UUIDs configured

[PROV] ExecBindingOperation

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],ExecBindingOperation,,Normal
end,from=xxxx:xxxx:xxxx:xxxx:xxxx:
xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{BindingOperations[0]{
  Operation=Bind,Port=1A,HostGroup=0,Lun=0,
  Alu{
    Id="60-06-0E-81-30-00-32-30-00-32-00-00-00-00-00-01",
    Ldev{
      Id=0x00:0x00:0x01}},
  Slu{
    Id="60-06-0E-81-30-00-32-30-00-32-00-00-00-00-00-02",
    Ldev{
      Id=0x00:0x00:0x02},
    SecondaryId="E2-00-00-00-02-00"},
  Result=Normal end}}
```

Detailed Information

Item	Description
BindingOperations[x]	The setting information when an LDEV with the SLU attribute is bound to the LDEV with the ALU attribute or when an LDEV with the SLU attribute is unbounded from the LDEV with the ALU attribute Binding can be operated from hosts associated with vSphere. Unbinding can be operated from hosts associated with vSphere or Device Manager - Storage Navigator.
Operation	Type of operations Bind: Bind mode, Unbind: Unbind mode
Port	The port number of the LUN path set to the LDEV with the ALU attribute
HostGroup	The host group number of the LUN path set to the LDEV with the ALU attribute
Lun	The LUN ID of the LUN path set to the LDEV with the ALU attribute
Alu	The setting information of the LDEV with the ALU attribute
Id	The ALU ID
Ldev	The setting information of the LDEV
Id	The LDEV ID
Slu	The setting information of the LDEV with the SLU attribute

Item			Description
	Id		The SLU ID
	Ldev		The setting information of the LDEV
		Id	The LDEV ID
	SecondaryId		The secondary ID
Result			The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code

[PROV] Expand V-VOLs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Expand V-VOLs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Pool ID,Capacity}
=[{0x00:0x00:0x00,0,80},{0x00:0x00:0x01,1,90},
{0x00:0x00:0x02,2,100}],Num. of VOLs = 3
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the V-VOL
Pool ID	The pool ID of the pool corresponding to the expanded V-VOL
Capacity	The capacity of the V-VOL after expanding in LBAs
Num. of VOLs	The number of expanded V-VOLs

[PROV] ExpandSlus

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],ExpandSlus,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Slus[0]{
  Id="60-06-0E-81-30-76-D9-30-76-D9-00-00-00-00-15-01",PoolId=2,
  Capacity=96158,Result=Normal end,LdevId=0x00:0x15:0x01}}
```

Detailed Information

Item		Description
Slus[x]		The setting information of the LDEV with the SLU attribute whose capacity is increased
	Id	The SLU ID
	PoolId	The number of an associated pool
	Capacity	The capacity after it is increased
	Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *xxxx*: Part code, *yyyyy*: Error code
	LdevId	The LDEV ID

[PROV] Force Del MF V-VOLs

Example

```
07xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Force Del MF V-VOLs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Result}=[{0x00:0x00:0x00,Normal end},
{0x00:0x01:0x00,Normal end},{0x00:0x02:0x00,Normal end}],
Num. of LDEVs=3
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDEV ID of the forcibly deleted V-Vol for Dynamic Provisioning for Mainframe or Dynamic Tiering for Mainframe
Result	Result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of deleted V-Vols

[PROV] Format LDEVs

The logged information indicates that the Format operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Format LDEVs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC:CU:LDEV=[0x00:0x00:0x01,0x00:0x00:0x02,0x00:0x00:0x03,
0x00:0x00:0x04,0x00:0x00:0x05,0x00:0x00:0x06,0x00:0x00:0x07,
```

```
0x00:0x00:0x08,0x00:0x00:0x09,0x00:0x00:0x0A],
Num. of LDEVs=10
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs to be formatted.

[PROV] Format LDEVs(H)

The logged information indicates that the Format operation using the Write to Control Blocks function was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Format LDEVs(H),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC:CU:LDEV=[0x00:0x00:0x01,0x00:0x00:0x02,
0x00:0x00:0x03,0x00:0x00:0x04,0x00:0x00:0x05,
0x00:0x00:0x06,0x00:0x00:0x07,0x00:0x00:0x08,
0x00:0x00:0x09,0x00:0x00:0x0A],Num. of LDEVs=10
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs to be formatted

[PROV] Format LDEVs(Q)

The logged information indicates that the Quick Format operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Format LDEVs(Q),,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC:CU:LDEV=[0x00:0x00:0x01,0x00:0x00:0x02,
0x00:0x00:0x03,0x00:0x00:0x04,0x00:0x00:0x05,
0x00:0x00:0x06,0x00:0x00:0x07,0x00:0x00:0x08,
0x00:0x00:0x09,0x00:0x00:0x0A],Num. of LDEVs=10
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number

Item	Description
Num. of LDEVs	The number of LDEVs to be formatted

[PROV] Initialize Pools

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Initialize Pools,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[PROV] LDEV Name

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],LDEV Name,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Name,Result}
=[{0x00:0x00:0x00,nickname_0000,Normal end},
{0x00:0x80:0xFF,$%0x0080,Normal end}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number
Name	The character string of a LDEV nickname
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of specified LDEVs

[PROV] Monitor Pools

This log information does not indicate the completion of performance monitoring processing of pools but the completion of performance monitoring operation of pools.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Monitor Pools,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Result}=[{1,Normal end}],Num. of Pools = 1
```

Detailed Information

Item	Description
Pool ID	The pool ID of a pool where the performance monitoring started
Result	The result of starting the performance monitoring of pools Normal end: Normal end, Error(*xxxx-yyyyy*):Abnormal end, Not Execute: Not executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of pools where the performance monitoring started

[PROV] Move Resources

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Move Resources,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Resource Group ID(From),Resource Group ID(To),Result}
={1,0,Normal end}
++{LDKC:CU:LDEV,LDEVResult}=[{0x00:0x00:0x00,Normal end},
{0x00:0x00:0x01,Normal end}],Num. of LDEVs=2
++{PG,PGResult}=[{E1-1,Normal end},{E1-2,Normal end}],
Num. of PGs=2
++{Port,PortResult}=[{1A,Normal end},{2A,Normal end}],
Num. of Ports=2
++{Port(HostGrp),HostGrpID,HostGrpResult}
=[{1A,0x01,Normal end},{1A,0x02,Normal end}],Num. of Host Groups=2
+Num. of Resource Groups=1
```

Detailed Information

Item	Description
Resource Group ID(From)	The source resource group ID to which the resource belongs
Resource Group ID(To)	The target resource group ID
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, *xxxx*: Part code, *yyyyy*: Error code
LDKC:CU:LDEV	The logical DKC, CU, and LDEV numbers of the moved LDEV.
LDEVResult	The result of the LDEV Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, *xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of moved LDEVs
PG	The number of a moved parity group

Item	Description
	E1-1: In the case of an external volume V1-1: In the case of a virtual volume X1-1: In the case of a Dynamic Provisioning volume
PGResult	The result of the parity group Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, *where xxxx*: Part code, *yyyyy*: Error code
Num. of PGs	The number of moved parity groups
Port	The name of a moved port
PortResult	The result of the port Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, *where xxxx*: Part code, *yyyyy*: Error code
Num. of Ports	The number of moved ports
Port(HostGrp)	The port name of a moved host group
HostGrpID	The host group ID of the moved host group
HostGrpResult	The result of the host group Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, *where xxxx*: Part code, *yyyyy*: Error code
Num. of Host Groups	The number of moved host groups
Num. of Resource Groups	The number of resource groups that operated the setting

[PROV] Pool Name

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Pool Name,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Name,Result}
=[{0,poolname_0000,Normal end},{127,,Normal end}],
Num. of Pools=2
```

Detailed Information

Item	Description
Pool ID	The pool group number
Name	The character string of a pool name

Item	Description
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*):Abnormal end, *where xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of specified pool groups

[PROV] Reclaim Zero Pages

This log information does not indicate the completion of zero pages reclaiming processing but the completion of zero pages reclaiming operation.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Reclaim Zero Pages,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV}
=[{0x00:0x00:0x00},{0x00:0x00:0x01},{0x00:0x00:0x02}],
Num. of VOLs = 3
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the LDEV where zero pages are reclaimed
Num. of VOLs	The number of LDEVs where zero pages are reclaimed

[PROV] Release HostReserved

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Release HostReserved,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,LUN,Result}=[{XXX,0xXXX,XXXX,Normal end},
{XXX,0xXXX,XXXX,Error(xxxx-yyyyy)}],Num. of LUNs=2
```

Detailed Information

Item	Description
Port	The name of the port to which the host group belongs
HostGrpID	The host group number
LUN	The LUN where Release HostReserved is forcefully executed
Result	The result of the operation:

Item	Description
	Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of LUNs	The number of LUNs for which Release HostReserved is forcefully executed

[PROV] Relocate Pool

This log information does not indicate the completion of Tier relocation processing of pools but the completion of Tier relocation operation of pools.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Relocate Pool,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Result}=[{1,Normal end}],Num. of Pools = 1
```

Detailed Information

Item	Description
Pool ID	The pool ID of a pool where the tier relocation was performed
Result	The result of relocating the tier of pools Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of pools where the tier relocation was performed

[PROV] Remove Hosts

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Remove Hosts,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,WWN}=[{XX,0xXXX,0xXXXXXXXXXXXXXXXX},
{XX,0xXXX,0xXXXXXXXXXXXXXXXX}],Num. of WWNs=2
```

Detailed Information

Item	Description
Port	The name of the port where the host deleted from host group was connected

Item	Description
HostGrpID	The host group number where the host is deleted
WWN	Indicates WWN of the host deleted from the host group
Num. of WWNs	The number of hosts (WWN) deleted from the host group

[PROV] Restore LDEVs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Restore LDEVs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDKC:CU:LDEV=[0x00:0x00:0x01,0x00:0x00:0x02,0x00:0x00:0x03,
0x00:0x00:0x04,0x00:0x00:0x05,0x00:0x00:0x06,0x00:0x00:0x07,
0x00:0x00:0x08,0x00:0x00:0x09,0x00:0x00:0x0A],
Num. of LDEVs=10
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number
Num. of LDEVs	The number of LDEVs being restored

[PROV] Restore Pools

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Restore Pools,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Result}
=[{1,Normal end},{2,Normal end},{128,Normal end}],
Num. of Pools=3
```

Detailed Information

Item	Description
Pool ID	The restored pool ID
Result	The result of the operation: Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of restored pools

[PROV] Set FCSP Host

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Set FCSP Host,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,Kind,UserName,Change UserName}
=[{1E,0xXXX,Add,111111111111111,-},
{3E,0xXXX,Change,2222222222222222,3333333333333333},
{5E,0xXXX,Delete,4444444444444444,-}],Num. of Info=3
```

Detailed Information

Item	Description
Port	The name of the port that includes the host group where user name has been set
HostGrpID	The number of the host group where user name has been set
Kind	The setting status of the user name that is registered to the host group. Add: Add user name, Change: Change user name, Delete: Delete user name.
UserName	The user name added or deleted when Kind is Add or Delete The user name before change when Kind is Change
Change UserName	The user name after change when Kind is Change Indicates a dash (-) when Kind is Add or Delete
Num. of Info	The number of added, changed or deleted user names.

[PROV] Set FCSP Port Info

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Set FCSP Port Info,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Auth_TOV,Reject Time,Reject Count}
=[{1E,45,3,3},{3E,60,1,10}],Num. of Ports=2
```

Detailed Information

Item	Description
Port	The name of the port where authentication parameter has been set
Auth_TOV	The time to execute authentication after the failure of port authentication. The unit is second.
Reject Time	The period of time to reject authentication when port authentication have failed. The unit is minute.

Item	Description
Reject Count	The number of authentication failures allowed before port authentication is rejected
Num. of Ports	The number of ports where authentication parameter has been set

[PROV] Set FCSP Port Switch

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Set FCSP Port Switch,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Switch,DH Group,Auth,UserName}
=[{1E,Enable,0,bi-directional,1111111111111111},
{3E,Disable,0,unidirectional,2222222222222222}],
Num. of Ports=2
```

Detailed Information

Item	Description
Port	The name of the port where authentication parameter has been set
Switch	The setting status whether to execute authentication by port. Disable: Do not authenticate, Enable: Authenticate
DH Group	Not used (fixed to 0)
Auth	The setting status of authentication method: bi-directional: bi-directional authentication, unidirectional: unidirectional authentication
UserName	The user name of the port
Num. of Ports	The number of ports where authentication parameter has been set

[PROV] Set FCSP Target

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Set FCSP Target,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,HostGrpID,Switch,DH Group,UserName}
=[{1E,0xXXX,Enable,0,1111111111111111},
{3E,0xXXX,Disable,0,2222222222222222}],
Num. of Grps=2
```

Detailed Information

Item	Description
Port	The name of the port that includes the host group where authentication parameter has been set
HostGrpID	The number of the host group where authentication has been set
Switch	The setting status whether to execute authentication by host group. Disable: Do not authenticate, Enable: Authenticate
DH Group	Not used (fixed to 0)
UserName	The user name of the host group
Num. of Grps	The number of host groups where authentication parameter has been set

[PROV] Set PageTieringLevel

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Set PageTieringLevel,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,Result}=[{0x00:0x00:0x00,Normal end}]
++{Start Page,Page Length,Page Tiering Level,Page Range Result}
=[{10,5, Level1,Normal end},{100,10, Level1,Normal end}],
Num. of Page Ranges=2
+Num. of VOLs=1
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the volume where the tiering policy is set
Result	The result of setting the tiering policy to the volume Normal end: Normal end Warning(xxxx-yyyyy): End with warning Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Start Page	The beginning page number of page ranges
Page Length	The length of page ranges
Page Tiering Level	The level of the tiering policy that is set to the page ranges If you unset the tiering policy, a hyphen (-) is output.
Page Range Result	The result of setting the tiering policy in page ranges Normal end: Normal end Warning(xxxx-yyyyy): End with warning Error(*xxxx-yyyyy*): Abnormal end

Item	Description
	where *xxxx*: Part code, *yyyyy*: Error code
Num. of Page Ranges	The specified number of page ranges
Num. of VOLs	The number of volumes where the tiering policy is set

[PROV] Set SSID

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Set SSID,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{SSID,LDKC:CU:LDEV}
=[{0xXXXX,0xXX:0xXX:0xXX},{0xXXXX,0xXX:0xXX:0xXX}],
Num. of SSIDs=2
```

Detailed Information

Item	Description
SSID	The SSID number
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers
Num. of SSIDs	The number of SSIDs

[PROV] Set Virtual LDEV

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Set Virtual LDEV,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Operation}={Set H-UVM ON}
++{LDKC:CU:LDEV,Virtual LDKC:CU:LDEV,Virtual Emulation,
Virtual SSID,Virtual LUSE,Virtual Attribute,Result}=
[{0x00:0x00:0x00,0x00:0x01:0x00,OPEN-V,0x0004,0,-,Normal end}],
Num. of LDEVs=1
```

Detailed Information

Item	Description
Operation	Indicates the performed operations Set H-UVM ON Set H-UVM OFF Set Virtual Ldev ID Delete Virtual Ldev ID Set Virtual Ldev Information

Item	Description
	Delete Virtual Ldev Information Set Virtual Ldev ID and Virtual Ldev Information Delete Virtual Ldev ID and Virtual Ldev Information Set Property Normal Set Property Migration Set Property Migration and Virtual Ldev ID and Virtual Ldev Information Set Property GAD S-Vol
LDKC:CU:LDEV	The logical DKC, CU, and LDEV numbers of an LDEV that is mapped the virtual information
Virtual LDKC:CU:LDEV	The logical DKC, CU, and LDEV numbers of the virtual LDEV
Virtual Emulation	The emulation type of the virtual LDEV
Virtual SSID	The SSID of the virtual LDEV
Virtual LUSE	The number of LUSE volumes of the virtual LDEV
Virtual Attribute	The attribute of the virtual LDEV CVS: CVS attribute, -: No attribute
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*):Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of LDEVs that is mapped the virtual information

[PROV] Shrink Pool

This log information does not indicate the completion of shrinking processing but the completion of shrinking operation.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Shrink Pool,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Result}=[{1,Normal end},{2,Normal end}],
Num. of Pools = 2
++{LDKC:CU:LDEV,LDEV Result}
=[{0x00:0x00:0x02,Normal end},
{0x00:0x00:0x03,Normal end},{0x00:0x02:0x01,Normal end}],
Num. of LDEVs = 3
```

Detailed Information

Item	Description
Pool ID	The pool ID of a shrinking pool

Item	Description
Result	The result of the shrinking operation Normal end: Normal end Not Execute: Not executed Error(*xxxxx-xxxxxxx*): Abnormal end where *xxxxx-xxxxxxx* indicates error codes.
Num. of Pools	The number of shrinking pools
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the shrinking LDEV
LDEV Result	The result of shrinking individual LDEVs Normal end: Normal end Error(*xxxx-yyyyy*): Abnormal end Not Execute: Not executed where *xxxx*: Part Code, *yyyyy*: Error Code
Num. of LDEVs	The number of shrinking LDEVs

[PROV] Stop Monitoring

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Stop Monitoring,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Result}=[{1,Normal end}],Num. of Pools = 1
```

Detailed Information

Item	Description
Pool ID	The pool ID of a pool where the performance monitoring stopped
Result	The result of stopping the tier relocating of pools Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not Executed where *xxxx*:Part code, *yyyyy*: Error code
Num. of Pools	The number of pools where the performance monitoring stopped

[PROV] Stop Reclm ZeroPages

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Stop Reclm ZeroPages,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV}
=[{0x00:0x00:0x00},{0x00:0x00:0x01},{0x00:0x00:0x02}],
Num. of VOLs = 3
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the LDEV where reclaiming of zero pages is stopped
Num. of VOLs	The number of LDEVs where reclaiming of zero pages is stopped

[PROV] Stop Relocating

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],Stop Relocating,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Result}=[{1,Normal end}],Num. of Pools=1
```

Detailed Information

Item	Description
Pool ID	The pool ID of a pool where the tier relocation was stopped
Result	The result of stop relocating the tier of pools Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not executed where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pools	The number of pools where the tier relocation was stopped

[PROV] Stop Shrinking Pool

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[PROV],Stop Shrinking Pool,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Pool ID,Result}=[{1,Normal end},{2,Normal end}],
Num. of Pools = 2
```

Detailed Information

Item	Description
Pool ID	The pool ID of the pool where shrinking is stopped
Result	The result of the stopping shrinking operation Normal end: Normal end Not Execute: Not executed Error(*xxxxx-xxxxxxx*): Abnormal end where *xxxxx-xxxxxxx* indicates error codes.

Item	Description
Num. of Pools	The number of pools where shrinking is stopped

[PROV] VTOC

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[PROV],VTOC,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{LDKC:CU:LDEV,VTOC(Trk),Result}
=[{0x00:0x00:0x00,14,Normal end},
{0x00:0x00:0x01,14,Normal end}],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC number, the CU number, and the LDEV number of the volume in which a VTOC size is set
VTOC(Trk)	The set VTOC size is displayed with the number of tracks
Result	The result of operation Normal end: Normal end Error(*xxxxx-xxxxxxx*): Abnormal end *where xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of VTOC sizes

Remote Maintenance Descriptions

[Remote Maintenance] PS Control

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RM AP,,,,
[Remote Maintenance],PS Control,,Normal end,,,Seq.=xxxxxxxxxx
+PS Control=OFF
```

Detailed Information

Item	Description
PS Control	Indicates whether it is PSON or PSOFF operation. ON: PSON operation, OFF: PSOFF operation.

[Remote Maintenance] Reboot MP

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RM AP,,,,
[Remote maintenance],Reboot MP,,Normal end,,,Seq.=xxxxxxxxxx
+MP=MP00-1MA
```

Detailed Information

Item	Description
MP	Indicates the name of MP to be rebooted

[Remote Maintenance] Reboot Port

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RM AP,,,,
[Remote Maintenance],Reboot Port,,Normal end,,,Seq.=xxxxxxxxxx
+PORT=1E
```

Detailed Information

Item	Description
Port	Indicates the port name to be rebooted

[Remote Maintenance] Reboot SVP

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RM AP,,,,
[Remote maintenance],Reboot SVP,,Normal end,,,Seq.=xxxxxxxxxx
```

[Remote Maintenance] Switch SVP

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RM AP,,,,
[Remote Maintenance],Switch SVP,,Normal end,,,Seq.=xxxxxxxxxx
```

[Remote Maintenance] Transfer Config

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RM AP,,,,
[Remote Maintenance],Transfer Config,,Normal end,,,Seq.=xxxxxxxxxx
```

Remote Replication Descriptions

[Remote Replication] Add Path

Example 1: system connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Add Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99999,0x00,0x00,Default,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
(Snip)
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99998,0x00,0x00,Default,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
+Num. of RCUs=xx
```

Example 2: CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Add Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Result}
={99999,0x00,0x3F,0x00,0x7F,0x0004,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Result}
={99998,0x00,0x3F,0x00,0x7F,0x0004,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
+Num. of RCUs=xx
```

Example 3: mixture of system connection and CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Add Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99999,0x00,0x00,Default,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Result}
={99998,0x00,0x3F,0x00,0x7F,0x0004,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
+Num. of RCUs=xx
```

Detailed Information

Item	Description
S/N	The serial number of the RCU
MCU LDKC	The LDKC number of the connected LDKC
RCU LDKC	The LDKC number of the paired LDKC
Path Gr.ID	The path group ID. When the path group ID is default setting, "Default" is output.
Controller ID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
MCU	The CU number of the connected CU
RCU	The CU number of the paired CU
SSID	The SSID
MCU Port	The port number of MCU
RCU Port	The port number of RCU
Num. of Port Pairs	Number of pairs of the port to be operated
Num. of RCUs	The number of RCUs set

[Remote Replication] Add Quorum Disk ID

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Add Quorum Disk ID,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Quorum Disk ID,Paired S/N,Controller ID,Quorum Disk(LDKC:CU:LDEV),
Result}=[{0x01,64024,7,0x00:0xFE:0x01,Normal end},
{0x02,64024,7,0x00:0xFE:0x02,Normal end},(Snip),
{0x7F,64024,7,0x00:0xFE:0x7F,Error(xxxx-yyyyy)}]
-,Num. of IDs=xx
```

Detailed Information

Item	Description
Quorum Disk ID	The added quorum disk ID used by global-active device
Paired S/N	The serial number of the remote storage system
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM

Item	Description
Quorum Disk(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the added quorum disk used by global-active device
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of IDs	The number of added quorum disk IDs used by global-active device

[Remote Replication] Add RCU

Example 1: system connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Add RCU,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99998,0x00,0x00,Default,6,08,015,001,Disable,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H},
{5H,7H}],Num. of Port Pairs=8
(Snip)
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99999,0x00,0x00,Default,6,08,015,001,Disable,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H},
{5H,7H}],Num. of Port Pairs=8
+Num. of RCUs=xx
```

Example 2: CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Add RCU,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99998,0x00,0x3F,0x00,0x7F,0x0004,6,08,015,001,Disable,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H},
{5H,7H}],Num. of Port Pairs=8
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99999,0x00,0x3F,0x00,0x7F,0x0004,6,08,015,001,Disable,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H},
{5H,7H}],Num. of Port Pairs=8
+Num. of RCUs=xx
```

Example 3: mixture of system connection and CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Add RCU,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99998,0x00,0x00,Default,6,08,015,001,Disable,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H},
{5H,7H}],Num. of Port Pairs=8
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99999,0x00,0x3F,0x00,0x7F,0x0004,6,08,015,001,Disable,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H},
{5H,7H}],Num. of Port Pairs=8
+Num. of RCUs=xx
```

Detailed Information

Item	Description
S/N	The serial number of the registered RCU
MCU LDKC	The LDKC number of the connected LDKC
RCU LDKC	The LDKC number of the paired LDKC
Path Gr.ID	The path group ID of the registered RCU. When the path group ID is default setting, "Default" is output.
Controller ID	The controller ID of the registered RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
MCU	The CU number of the connected CU
RCU	The CU number of the paired CU
SSID	The SSID of the registered RCU
MCU Port	The port number of MCU
RCU Port	The port number of the registered RCU
Min.Path	The number of set minimum paths
MIH Time(s)	The value of set RIO MIH (Remote I/O Missing Interrupt Handler) timer (wait time until data copy from MCU to RCU is complete). The unit is second.
Round Trip Time(ms)	The round-trip response time set (delay time for round-trip remote I/O). The unit is millisecond. This value is output when TrueCopy or TrueCopy for Mainframe is used.
FREEZE	Indicates whether CGROUP (FREEZE/RUN) PPRC TSO command support is enabled or disabled. This value is output only when TrueCopy for Mainframe is used. Enable or Disable is output.
Result	The result of the operation Normal end: Normal end,

Item	Description
	Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Port Pairs	The number of port pairs set
Num. of RCUs	The number of RCUs set

[Remote Replication] Change JNL Option

Example 1: when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Change JNL Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{LDKC,JNL,Data Overflow Watch(s),Inflow Control,
Use of Cache,Result}
=[{0x00,0x001,20,Yes,Not Use,Normal end},
{0x00,0x002,20,No,Use,Normal end}],Num. of JNLs=2
```

Example 2: when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Change JNL Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
+{LDKC,JNL,Data Overflow Watch(s),Inflow Control,
Timer Type,Use of Cache,Result}
=[{0x00,0x001,20,Yes,System,Not Use,Normal end},
{0x00,0x002,20,No,Local,Use,Normal end}],Num. of JNLs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator, URMF: Universal Replicator for Mainframe
LDKC	The LDKC number to which the journal belongs
JNL	The journal number
Data Overflow Watch(s)	The overflow watch time of the meta data or journal data (in seconds)
Inflow Control	Whether to restrict the flow of update I/O to the journal volume Yes: Restricted, No: Not restricted
Timer Type	Type of the clock used for the consistency time System: Uses the system clock of the mainframe host of the primary site. Local: Does not use the system clock.

Item	Description
	None: Uses the system clock of the mainframe host of the primary site when data copying is from the storage system of the secondary site to the storage system of the primary site. This information is output only when the copy type is "URMF".
Use of Cache	Whether to store the journal data in the restore journal in cache. Use: Stores, Not Use: Does not store
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of JNLs	The number of journals

[Remote Replication] Change Mirror Option

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Change Mirror Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{LDKC,JNL,MirrorID,Copy Pace,Path Watch Time,
Forward Path Watch Time,Transfer Speed(Mbps),
Delta resync Failure,Result}
=[{0x00,0x001,0x00,Medium,12(hour),Yes,100,Entire,Normal end},
{0x00,0x002,0x00,Low,1(day),No,10,None,Normal end}],
Num. of Mirrors=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator, URMF: Universal Replicator for Mainframe
LDKC	The LDKC number to which the journal belongs
JNL	The journal number
MirrorID	The mirror ID
Copy Pace	The speed of initial copy Low: Low speed, Medium: Medium speed, High: High speed
Path Watch Times	Path block watch time (observation time from the path block till the mirror split <suspended>) The units are minutes, hours or days. If it is set to 30 minutes, it will be 30(min.).
Forward Path Watch Time	Indicates whether to transfer the path blockade watch period of the master journal to the restore journal. Yes: Transfer, No: Do Not Transfer

Item	Description
Transfer Speed(Mbps)	The transfer speed of the communication line. The unit is megabits per second (Mbps).
Delta resync Failure	Indicates the operation mode when Delta resync operation have failed. Entire: Copy the entire data volume, None: Do not copy the entire data volume
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Mirrors	The number of mirrors

[Remote Replication] Change RCU Option

Example 1: system connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Change RCU Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99998,0x00,0x00,Default,6,08,015,001,Disable,Normal end}
(Snip)
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99999,0x00,0x00,Default,6,08,015,001,Disable,Normal end}
+Num. of RCUs=xx
```

Example 2: CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Change RCU Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,MCU,RCU LDKC,SSID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99998,0x00,0x3F,0x00,0x0004,6,08,015,001,Disable,Normal end}
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,SSID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99999,0x00,0x3F,0x00,0x0004,6,08,015,001,Disable,Normal end}
+Num. of RCUs=xx
```

Example 3: mixture of system connection and CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Change RCU Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Min.Path,
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99998,0x00,0x00,Default,6,08,015,001,Disable,Normal end}
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,SSID,Controller ID,Min.Path,
```

```
MIH Time(s),Round Trip Time(ms),FREEZE,Result}
={99999,0x00,0x3F,0x00,0x0004,6,08,015,001,Disable,Normal end}
+Num. of RCUs=xx
```

Detailed Information

Item	Description
S/N	The serial number of the RCU on which the RCU option is changed
MCU LDKC	The LDKC number of the connected LDKC
RCU LDKC	The LDKC number of the paired LDKC
Path Gr.ID	The path group ID of the RCU on which the RCU option is changed. When the path group ID is default setting, "Default" is output.
Controller ID	The controller ID of the RCU on which the RCU option is changed 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
MCU	The CU number of the connected CU
SSID	The SSID of the RCU on which the RCU option is changed
Min.Path	The number of minimum paths after the change
MIH Time(s)	The value of RIO MIH (Remote I/O Missing Interrupt Handler) timer after the change (wait time until data copy from MCU to RCU is complete). The unit is second.
Round Trip Time(ms)	The round-trip response time after the change (delay time for round-trip remote I/O). The unit is millisecond. This value is output when TrueCopy or TrueCopy for Mainframe is used.
FREEZE	Indicates whether CGROUP (FREEZE/RUN) PPRC TSO command support is enabled or disabled. This value is output only when TrueCopy for Mainframe is used. Enable or Disable is output.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of RCUs	The number of RCUs set

[Remote Replication] Clear SIM

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Clear SIM,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Remote Replication] Create Pairs

Example 1: when the copy type is TC

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Create Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
S/N,LDKC,ID,Controller ID,Type,Initial Copy,Fence Level,
Copy Pace,Priority,Diff,Result}
=[{1A-0x00-0,GR-0xFE-1023,99999,0x00,Default,6,Sync,Entire,
Never,15,032,Track,Normal end},(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 1

Item	Description
Copy Type	The program product name for this operation TC: TrueCopy
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the volume specified to the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the volume specified to the secondary volume
S/N	The serial number of the RCU
LDKC	The LDKC number of the RCU
ID	The path group ID or SSID When the path group ID is default setting, "Default" is output.
Controller ID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Type	Type of the update copy operation Outputs Sync (synchronization mode) as a fixed parameter.
Initial Copy	Type of the pair creation operation Entire: Creates pairs and copies data from the primary volume to the secondary volume. None: Creates pairs but does not copy data from the primary volume to the secondary volume.
Fence Level	Configured fence level (conditions where the local storage system rejects write operations to the primary volume) Never: Can write to the primary volume even the pair is split. Data: Cannot write to the primary volume when update copying fails. Status: Cannot write to the primary volume, only when the storage system of the primary site cannot change the pair status of the secondary volume to PSUE.
Copy Pace	The setting of the initial copy speed (the number of tracks that can be copied at a time)
Priority	The priority of the set initial copy operation (scheduling order).
Diff	The unit of the difference management setting

Item	Description
	Outputs Track as a fixed parameter.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of create pairs

Example 2: when the copy type is TCMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Create Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TCMF,{P-VOL(LDKC:CU:LDEV),S-VOL(LDEV),
S/N,LDKC,SSID,Controller ID,Type,Initial Copy,Fence Level,
Copy Pace,Priority,Diff,CFW,DFW,TS,Result}
=[{0x00:0x00:0x00,0xFF,99999,0x00,0x0004,6,Sync,Entire,Never,
15,032,Track,Only P-VOL,Required,Enable,Normal end},
(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 2

Item	Description
Copy Type	The program product name for this operation TCMF: TrueCopy for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary volume
S-VOL(LDEV)	The LDEV number of the secondary volume
S/N	The serial number of the RCU
LDKC	The LDKC number of the RCU
SSID	The SSID of the RCU
Controller ID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Type	Type of the update copy operation Outputs Sync (synchronization mode) as a fixed parameter.
Initial Copy	Type of the pair creation operation Entire: Creates pairs and copies data from the primary volume to the secondary volume. None: Creates pairs but does not copy data from the primary volume to the secondary volume.
Fence Level	Configured fence level (conditions where the local storage system rejects write operations to the primary volume) Never: Can write to the primary volume even the pair is split.

Item	Description
	Data: Cannot write to the primary volume when update copying fails. Status: Cannot write to the primary volume, only when the storage system of the primary site cannot change the pair status of the secondary volume to Suspend.
Copy Pace	The setting of the initial copy speed (the number of tracks that can be copied at a time)
Priority	The priority of the set initial copy operation (scheduling order).
Diff	The unit of the difference management setting Outputs Track as a fixed parameter.
CFW	Whether to copy CFW (cache fast write) data to the secondary volume. Only P-VOL: Does not copy, Copy to S-VOL: Copies
DFW	Whether the storage system of the primary site splits pairs when the storage system of the secondary site cannot copy DFW data to the secondary volume. Required: Splits pairs. Not Required: Does not split pairs.
TS	Indicates whether to transfer the host I/O time stamp to the secondary volume when creating a pair. Enable: Transfer, Disable: Not transfer
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of create pairs

Example 3: when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Create Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),MirrorID,
S/N,CTRLID,Priority,CTG,Initial Copy,M-JNL,R-JNL,
Path Gr. ID,Error Level,Result}
=[{4C-0x00-0,4A-0x00-0,0x00,67676,6,32,0x000,Entire,
0x001,0x001,Default,Mirror,Normal end},
{4C-0x00-1,4A-0x00-1,0x00,67676,6,32,0x000,Entire,
0x001,0x001,Default,Mirror,Normal end}],Num. of Pairs=2
```

Detailed Information 3

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator

Item	Description
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary data volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary data volume
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Priority	The priority of the set initial copy operation (scheduling order).
CTG	The consistency group ID
Initial Copy	Type of the pair creation operation Entire: Creates pairs and copies data from the primary volume to the secondary volume. None: Creates pairs but does not copy data from the primary volume to the secondary volume. Delta: Creates delta resynchronization pairs.
M-JNL	The master journal number
R-JNL	The restore journal number
Path Gr. ID	The path group ID specified for the storage system When the path group ID is default setting, "Default" is output.
Error Level	Range of the pair split at failure occurrence Mirror: When a pair fails, all the pairs are split that exist in the same mirror as the pair. LU: When a pair fails, only the pair is split.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of created pairs

Example 4: when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Create Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
+{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MirrorID,S/N,
CTRLID,Priority,Initial Copy,M-JNL,R-JNL,Path Gr. ID,
Error Level,CFW,Result}
=[{0x00:0x00:0x00,0x00:0x20:0x00,0x00,65432,6,32,Entire,
0x002,0x000,Default,Mirror,Copy to S-VOL,Normal end},
-{0x00:0x00:0x01,0x00:0x20:0x01,0x00,65432,6,32,Entire,
0x002,0x000,Default,Mirror,Copy to S-VOL,Normal end}],
Num. of Pairs=2
```

Detailed Information 4

Item	Description
Copy Type	The program product name for this operation URMF: Universal Replicator for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary data volume
S-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the secondary data volume
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Priority	The priority of the set initial copy operation (scheduling order).
Initial Copy	Type of the pair creation operation Entire: Creates pairs and copies data from the primary volume to the secondary volume. None: Creates pairs but does not copy data from the primary volume to the secondary volume. Delta: Creates delta resynchronization pairs.
M-JNL	The master journal number
R-JNL	The restore journal number
Path Gr. ID	The path group ID specified for the storage system When the path group ID is default setting, "Default" is output.
Error Level	Range of the pair split at failure occurrence Mirror: When a pair fails, all the pairs are split that exist in the same mirror as the pair. Volume: When a pair fails, only the pair is split.
CFW	Whether to copy CFW (cache fast write) data to the secondary volume. Only P-VOL: Does not copy, Copy to S-VOL: Copies
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of created pairs

Example 5: when the copy type is GAD

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Create Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+Copy Type=GAD,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
S/N_P,S/N_S,Path Gr.ID,Controller ID,SSID,Copy Pace,Quorum Disk ID,
MirrorID,CTG,Initial Copy,Result}=
[{1A-0x00-0,GR-0xFE-1023,62345,62355,0x00,7,0x0004,15,0x15, 0,
0x000, None,Normal end},(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 5

Item	Description
Copy Type	The program product name for this operation GAD: global-active device
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary volume
S/N_P	The serial number of the local storage system
S/N_S	The serial number of the remote storage system
Path Gr.ID	Path group ID used in a global-active device pair
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
SSID	The SSID
Copy Pace	The setting of the initial copy speed (the number of tracks that can be copied at a time)
Quorum Disk ID	The quorum disk ID used by global-active device
MirrorID	The mirror ID
CTG	The consistency group ID A hyphen (-) is displayed if the consistency group is not specified.
Initial Copy	Type of the pair creation operation Entire: Creates pairs and copies data from the primary volume to the secondary volume. None: Creates pairs but does not copy data from the primary volume to the secondary volume.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of created pairs

[Remote Replication] Delete Cmd.Dev

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Cmd.Dev,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Remote Replication] Delete Pairs

Example 1: when the copy type is TC

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
Type,Force,Result}
=[{1A-0x00-0,1B-0x00-0,P-VOL,No,Normal end},
{1A-0x00-1,1B-0x00-1,P-VOL,No,Normal end},
{1A-0x00-2,1B-0x00-2,P-VOL,No,Normal end},(Snip)-(Snip)],
Num. of Pairs=xx
```

Detailed Information 1

Item	Description
Copy Type	The program product name for this operation TC: TrueCopy
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the volume specified to the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the volume specified to the secondary volume
Type	Volume type of the local storage system P-VOL: Primary volume, S-VOL: Secondary volume
Force	Conditions to delete pairs forcibly Yes: Deletes pairs, also when the local storage system cannot communicate with the remote storage system. No: Deletes pairs, only when the local storage system can change the pair to simplex volumes.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of delete pairs

Example 2: when the copy type is TCMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+Copy Type=TCMF,{VOL(LDKC:CU:LDEV),PairVOL(LDEV),
Type,Mode,Result}
=[{0x00:0x00:0x00,0xFD,P-VOL,Normal,Normal end},
{0x00:0x00:0x01,0xFE,P-VOL,Normal,Normal end},
{0x00:0x00:0x02,0xFF,P-VOL,Normal,Normal end},(Snip)-(Snip)],
Num. of Pairs=xx
```

Detailed Information 2

Item	Description
Copy Type	The program product name for this operation TCMF: TrueCopy for Mainframe
VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the volume on MCU
PairVOL(LDEV)	The LDEV number of the volume on RCU
Type	Volume type of the local storage system P-VOL: Primary volume, S-VOL: Secondary volume
Mode	Type of the pair deletion operation Normal: Deletes pairs. Force: Deletes pairs forcibly. All: Deletes forcibly all the pairs that use the same remote connection as the pair.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of deleted pairs

Example 3: when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),MirrorID,
S/N,CTRLID,Type,Range,Delete Mode,Result}
=[{4C-0x00-0,4A-0x00-0,0x00,67676,6,P-VOL,LU,Normal,Normal end},
{4C-0x00-1,4A-0x00-1,0x00,67676,6,P-VOL,LU,Normal,Normal end}],
Num. of Pairs=2
```

Detailed Information 3

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary data volume

Item	Description
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary data volume
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Type	The volume type of the deleted volume P-VOL: Primary volume, S-VOL: Secondary volume
Range	The delete range Mirror: All the pairs are delete that exist in the same mirror as the pair. LU: Only the pair is delete.
Delete Mode	Type of the pair deletion operation Normal: Deletes pairs, Force: Deletes pairs forcibly.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of deleted pairs

Example 4: when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
+{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MirrorID,S/N,
CTRLID,Type,Range,Delete Mode,Result}
=[{0x00:0x00:0x00,0x00:0x20:0x00,0x00,65432,6,P-VOL,Volume,
Normal,Normal end},
{0x00:0x00:0x02,0x00:0x20:0x02,0x00,65432,6,P-VOL,Volume,
Normal,Normal end}],Num. of Pairs=2
```

Detailed Information 4

Item	Description
Copy Type	The program product name for this operation URMF: Universal Replicator for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary data volume
S-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the secondary data volume

Item	Description
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Type	The volume type of the deleted volume P-VOL: Primary volume, S-VOL: Secondary volume
Range	The delete range Mirror: All the pairs are delete that exist in the same mirror as the pair. LU: Only the pair is delete.
Delete Mode	Type of the pair deletion operation Normal: Deletes pairs, Force: Deletes pairs forcibly.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of deleted pairs

Example 5: when the copy type is GAD

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=GAD,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
S/N_P,S/N_S,Type,SSID_P,SSID_S,CTG,Range,Force,MirrorID,
Invisible,Result}=
[{1A-0x00-0,GR-0xFE-1023,62345,62355,P-VOL,0x0004,0x0004,-,
Volume,Yes,0,Disable,Normal end},
(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 5

Item	Description
Copy Type	The program product name for this operation GAD: global-active device
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary volume
S/N_P	The serial number of the local storage system
S/N_S	The serial number of the remote storage system
Type	Volume type of the local storage system

Item	Description
	SMPL: simplex, P-VOL: Primary volume, S-VOL: Secondary volume
SSID_P	The SSID of the primary volume
SSID_S	The SSID of the secondary volume
CTG	The consistency group ID A hyphen (-) is displayed when Range is Volume.
Range	The applicable range of pair deletion Volume: Only this volume, Group: All volumes in the consistency group to which this volume belongs
Force	Conditions to delete pairs forcibly Yes: Deletes pairs, also when the local storage system cannot communicate with the remote storage system. No: Deletes pairs, only when the local storage system can change the pair to simplex volumes.
MirrorID	The mirror ID
Invisible	Indicates whether the host can access volumes after deleting pairs. Enable: Keeps the virtual LDEV ID of the volume of the local storage system so that servers can access the volume. Disable: Deletes the virtual LDEV ID of the volume of the local storage system so that no server can access the volume.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of deleted pairs

[Remote Replication] Delete Path

Example 1: system connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99999,0x00,0x00,Default,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
(Snip)
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99998,0x00,0x00,Default,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
+Num. of RCUs=xx
```

Example 2: CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Result}
={99999,0x00,0x3F,0x00,0x7F,0x0004,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Result}
={99998,0x00,0x3F,0x00,0x7F,0x0004,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
+Num. of RCUs=xx
```

Example 3: mixture of system connection and CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete Path,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99999,0x00,0x00,Default,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,RCU,SSID,Controller ID,Result}
={99998,0x00,0x3F,0x00,0x7F,0x0004,6,Normal end}
++{MCU Port,RCU Port}
=[{1E,3E},{5E,7E},{1F,3F},{5F,7F},{1G,3G},{5G,7G},{1H,3H}],
Num. of Port Pairs=7
+Num. of RCUs=xx
```

Detailed Information

Item	Description
S/N	The serial number of the RCU on which a path is deleted
MCU LDKC	The LDKC number of the connected LDKC
RCU LDKC	The LDKC number of the paired LDKC
Path Gr.ID	The path group ID of the deleted path. When the path group ID is default setting, "Default" is output.
Controller ID	The controller ID of the RCU on which a path is deleted 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
MCU	The CU number of the connected CU
RCU	The CU number of the paired CU

Item	Description
SSID	The SSID
MCU Port	The port number of MCU
RCU Port	The port number of RCU
Num. of Port Pairs	Number of pairs of the port to be operated
Num. of RCUs	The number of RCUs set

[Remote Replication] Del Quorum Disk ID

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Del Quorum Disk ID,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Quorum Disk ID,Paired S/N,Controller ID,Quorum Disk(LDKC:CU:LDEV),
Result}=[{0x01,64024,7,0x00:0xFE:0x01,Normal end},
{0x02,64024,7,0x00:0xFE:0x02,Normal end},(Snip),
{0x7F,64024,7,0x00:0xFE:0x7F,Error(xxxx-yyyyy)}]
-,Num. of IDs=xx
```

Detailed Information

Item	Description
Quorum Disk ID	The deleted quorum disk ID used by global-active device
Paired S/N	The serial number of the remote storage system
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Quorum Disk(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the deleted quorum disk used by global-active device
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of IDs	The number of deleted quorum disk IDs used by global-active device

[Remote Replication] Delete RCU

Example 1: system connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete RCU,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99999,0x00,0x00,Default,6,Normal end}
```

```
(Snip)
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99998,0x00,0x00,Default,6,Normal end}
+Num. of RCUs=xx
```

Example 2: CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete RCU,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,MCU,RCU LDKC,SSID,Result}
={99999,0x00,0x3F,0x00,0x0004,Normal end}
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,SSID,Result}
={99998,0x00,0x3F,0x00,0x0004,Normal end}
+Num. of RCUs=xx
```

Example 3: mixture of system connection and CU connection

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Delete RCU,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{S/N,MCU LDKC,RCU LDKC,Path Gr.ID,Controller ID,Result}
={99999,0x00,0x00,Default,6,Normal end}
(Snip)
+{S/N,MCU LDKC,MCU,RCU LDKC,SSID,Result}
={99998,0x00,0x3F,0x00,0x0004,Normal end}
+Num. of RCUs=xx
```

Detailed Information

Item	Description
S/N	The serial number of the deleted RCU
MCU LDKC	The LDKC number of the connected LDKC
RCU LDKC	The LDKC number of the paired LDKC
Path Gr.ID	The path group ID of the deleted RCU. When the path group ID is default setting, "Default" is output.
Controller ID	The controller ID of the deleted RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
MCU	The CU number of the connected CU
SSID	The SSID of the deleted RCU
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of RCUs	The number of deleted RCUs

[Remote Replication] Edit Options

Example 1: Editing storage system options

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{Max Initial Copy,CU Activity,
Path Blockade Watch(s),Path Blockade SIM Watch(s),
Service SIM,Switch}
={128,Enable,45,070,Not Report,-}
```

Example 2: Editing CU options

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{LDKC,CU,Service SIM,PPRC Support,Max Initial Copy}
=[{0x00,0x00,Not Report,Yes,04},
{0x00,0x01,Not Report,Yes,04},
{0x00,0x02,Not Report,Yes,04},
{0x00,0x03,Not Report,Yes,04},
{0x00,0x04,Not Report,Yes,04},(Snip)-(Snip)],
Num. of CUs=255
```

Example 3: Editing both storage system options and CU options

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{Max Initial Copy,CU Activity,
Path Blockade Watch(s),Path Blockade SIM Watch(s),
Service SIM,Switch}
={128,Enable,45,070,Not Report,-}
+{LDKC,CU,Service SIM,PPRC Support,Max Initial Copy}
=[{0x00,0x00,Not Report,Yes,04},
{0x00,0x01,Not Report,Yes,04},
{0x00,0x02,Not Report,Yes,04},
{0x00,0x03,Not Report,Yes,04},
{0x00,0x04,Not Report,Yes,04},(Snip)-(Snip)],
Num. of CUs=255
```

Example 4: Editing remote replication function switch

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{Max Initial Copy,CU Activity,
Path Blockade Watch(s),Path Blockade SIM Watch(s),
Service SIM,Switch}
={-,-,-,-,-,1000 0000 0000 0000 0100 0000 0000 0000 0000 0000
0000 0000 0000 0000 0000 0000}
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation

Item	Description
	TC: TrueCopy
Max Initial Copy	The setting of the maximum number of initial copy operations If this is not a subject to change, a hyphen (-) is displayed. If any one of Max Initial Copy, CU Activity, Path Blockade Watch(s), Path Blockade SIM Watch(s), and Service SIM is changed, this will be the subject to change.
CU Activity	Indicates whether the parallel operation of initial copy by the control unit is enabled or not. Enable or Disable will appear. If this is not a subject to change, a hyphen (-) is displayed. If any one of Max Initial Copy, CU Activity, Path Blockade Watch(s), Path Blockade SIM Watch(s), and Service SIM is changed, this will be the subject to change.
Path Blockade Watch(s)	The path blockade watch period setting (in seconds). If this is not a subject to change, a hyphen (-) is displayed. If any one of Max Initial Copy, CU Activity, Path Blockade Watch(s), Path Blockade SIM Watch(s), and Service SIM is changed, this will be the subject to change.
Path Blockade SIM Watch(s)	The path blockade SIM watch period setting (in seconds). If this is not a subject to change, a hyphen (-) is displayed. If any one of Max Initial Copy, CU Activity, Path Blockade Watch(s), Path Blockade SIM Watch(s), and Service SIM is changed, this will be the subject to change.
Service SIM	Indicates whether the remote replication related SIM is reported or not. Report, Not Report If this is not a subject to change, a hyphen (-) is displayed. If any one of Max Initial Copy, CU Activity, Path Blockade Watch(s), Path Blockade SIM Watch(s), and Service SIM is changed, this will be the subject to change.
Switch	Indicates the ON/OFF information of each bit of the function switch that is allocated in the 64 bit format; the first digit corresponds to the bit 0 while the last one corresponds to the bit 63. 0: OFF, 1: ON If this is not a subject to change, a hyphen (-) is displayed.
LDKC	The LDKC number
CU	The CU number of the connected CU
Service SIM	Indicates whether the remote replication related SIM is reported. Report, Not Report If this is not a subject to change, a hyphen (-) is displayed. If any one of Service SIM, PPRC Support, and Max Initial Copy is changed, this will be the subject to change.
PPRC Support	Indicates whether the host supports PPRC Yes: Support, No: Not support

Item	Description
	If this is not a subject to change, a hyphen (-) is displayed. If any one of Service SIM, PPRC Support, and Max Initial Copy is changed, this will be the subject to change.
Max Initial Copy	The number of parallel operation of initial copy by CU. If this is not a subject to change, a hyphen (-) is displayed. If any one of Service SIM, PPRC Support, and Max Initial Copy is changed, this will be the subject to change.
Num. of CUs	The number of CUs set

Example 5: Editing Max Initial Copy

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+Max Initial Copy=64
```

Example 6: Editing SIM Report

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{LDKC:CU,SIM Report}
=[{0x00:0x00,Report},{0x00:0x01,Not Report},
{0x00:0x02,Not Report},(Snip)-(Snip),{0x00:0xFE,Report}],
Num. of CUs=256
```

Example 7: Editing both Max Initial Copy and SIM Report

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+Max Initial Copy=64
+{LDKC:CU,SIM Report}
=[{0x00:0x00,Report},{0x00:0x01,Not Report},
{0x00:0x02,Not Report},(Snip)-(Snip),{0x00:0xFE,Report}],
Num. of CUs=256
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator
Max Initial Copy	The setting of the maximum number of initial copy operations
LDKC:CU	The LDKC and CU numbers
SIM Report	Whether to report SIM to the host or not. Report, Not report

Item	Description
Num. of CUs	The number of CUs on which the setting is changed
Note: Only the changed items are output.	

Example 8: when the copy type is GAD

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=GAD,{Max Initial Copy,Path Blockade Watch(s),
Path Blockade SIM Watch(s),Service SIM,Switch,Max Initial Copy HA}=
{128,45,70,Not Report,0000 0000 0000 0000 0000 0000 0000 0000 0000
0000 0000 0000 0000 0000 0000 0000,50}
```

Detailed Information 8

Item	Description
Copy Type	The program product name for this operation GAD: global-active device
Max Initial Copy	The setting of the maximum number of initial copy operations
Path Blockade Watch(s)	The path blockade watch period setting (in seconds).
Path Blockade SIM Watch(s)	The path blockade SIM watch period setting (in seconds).
Service SIM	Indicates whether the remote replication related SIM is reported. Report: Reported, Not Report: Not reported
Switch	Indicates the ON/OFF information of each bit of the function switch that is allocated in the 64 bit format; the first digit corresponds to the bit 0 while the last one corresponds to the bit 63. 0: OFF, 1: ON If this is not a subject to change, a hyphen (-) is displayed.
Max Initial Copy HA	The setting of the number of initial copy operations of GAD

[Remote Replication] Edit Pair Options

Example 1: when the copy type is TC

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Pair Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{P-VOL(Port-G-ID-LUN),Fence Level,Result}
=[{1A-0x00-0,Never,Normal end},{1A-0x00-1,Never,Normal end},
{1A-0x00-2,Never,Normal end},(Snip)-(Snip)],
Num. of Pairs=xx
```

Detailed Information 1

Item	Description
Copy Type	The program product name for this operation TC: TrueCopy
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary volume
Fence Level	The changed fence level setting (the condition that MCU rejects the write operation to the primary volume). Never: Can write to the primary volume even when the pair is split. Data: Cannot write to the primary volume when update copying fails. Status: Cannot write to the primary volume, only when the storage system of the primary site cannot change the pair status of the secondary volume to PSUE.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of pairs on which the setting is changed

Example 2: when the copy type is TCMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Pair Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TCMF,{P-VOL(LDKC:CU:LDEV),Fence Level,CFW,Result}
=[{0x00:0x00:0x00,Never,Copy To S-VOL,Normal end},
{0x00:0x01,Never,Copy to S-VOL,Normal end},(Snip)-(Snip)],
Num. of Pairs=x
```

Detailed Information 2

Item	Description
Copy Type	The program product name for this operation TCMF: TrueCopy for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary volume
Fence Level	The changed fence level setting (the condition that MCU rejects the write operation to the primary volume). Never: Can write to the primary volume even when the pair is split. Data: Cannot write to the primary volume when update copying fails. Status: Cannot write to the primary volume, only when the storage system of the primary site cannot change the pair status of the secondary volume to Suspend.
CFW	Indicates whether the setting to copy the CFW (Cache Fast Write) data to the secondary volume is enabled or not.

Item	Description
	Only P-VOL: Copy to primary volume only is enabled Copy to S-VOL: Copy to primary and secondary volume is enabled
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of pairs on which the setting is changed

Example 3: when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Pair Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),MirrorID,
M-JNL,R-JNL,Error Level,Result}
=[{4C-0x00-0,4A-0x00-0,0x00,0x001,0x001,Mirror,Normal end},
{4C-0x00-1,4A-0x00-1,0x00,0x001,0x001,Mirror,Normal end}],
Num. of Pairs=2
```

Detailed Information 3

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary data volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary data volume
MirrorID	The mirror ID
M-JNL	The master journal number
R-JNL	The restore journal number
Error Level	Range of the pair split at failure occurrence Mirror: When a pair fails, all the pairs are split that exist in the same mirror as the pair. LU: When a pair fails, only the pair is split.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of pairs on which the setting is changed

Example 4: when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Edit Pair Options,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
+{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),
MirrorID,M-JNL,R-JNL,Error Level,CFW,Result}
=[{0x00:0x00:0x00,0x00:0x20:0x00,0x03,0x001,0x002,Volume,
Only P-VOL,Normal end},
{0x00:0x00:0x02,0x00:0x20:0x02,0x03,0x001,0x002,Volume,
Only P-VOL,Normal end}],
Num. of Pairs=2
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation URMF: Universal Replicator for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary data volume
S-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the secondary data volume
MirrorID	The mirror ID
M-JNL	The master journal number
R-JNL	The restore journal number
Error Level	Range of the pair split at failure occurrence Mirror: When a pair fails, all the pairs are split that exist in the same mirror as the pair. Volume: When a pair fails, only the pair is split.
CFW	Indicates whether the setting to copy the CFW data to the secondary volume is enabled or not. Only P-VOL: Copy to primary volume only is enabled Copy to S-VOL: Copy to primary and secondary volume is enabled
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Num. of Pairs	The number of pairs on which the setting is changed

[Remote Replication] Journal Owner

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Journal Owner,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+{JNL,Owner,Result}={0x000,0x00,Normal end},
{0x001,0x00,Normal end},
Num. of JNLs=2
```

Detailed Information

Item	Description
JNL	The journal number
Owner	The ownership to which the journal belongs
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Num. of JNLs	The number of journals

[Remote Replication] Journal Vol

Example 1: Adding journal volumes when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Journal Vol,Add,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{LDKC,JNL,2DC Cascade,Owner}={0x00,0x001,Disable,0x00}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD7:0x01,Normal end}],Num. of LDEVs=1
+{LDKC,JNL,2DC Cascade,Owner}={0x00,0x002,Disable,0x00}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD8:0x21,Normal end}],Num. of LDEVs=1
+Num. of JNLs=2
```

Example 2: Deleting journal volumes when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Journal Vol,Delete,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{LDKC,JNL}={0x00,0x001}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD7:0x01,Normal end}],Num. of LDEVs=1
+{LDKC,JNL}={0x00,0x002}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD8:0x21,Normal end}],Num. of LDEVs=1
+Num. of JNLs=2
```

Basic Information (Adding or deleting journal volumes when the copy type is UR)

Parameter	Description
Add	Indicates the addition of journal volumes
Delete	Indicates the deletion of journal volumes

Detailed Information (Adding or deleting journal volumes when the copy type is UR)

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator
LDKC	The LDKC number to which the journal belongs
JNL	The journal number
2DC Cascade	Indicates if the journal supports 2DC cascade configuration. Disable: Not supported, Enable: Supported This information is output when the parameter is Add.
Owner	The ownership to which the journal belongs This information is output when the parameter is Add.
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the volume
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of LDEVs set for the journal
Num. of JNLs	The number of journals

Example 3: Adding journal volumes when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Journal Vol,Add,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
+{LDKC,JNL,Timer Type,Owner}={0x00,0x001,System,0x00}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD7:0x01,Normal end}],Num. of LDEVs=1
+{LDKC,JNL,Timer Type,Owner}={0x00,0x002,System,0x00}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD8:0x21,Normal end}],Num. of LDEVs=1
+Num. of JNLs=2
```

Example 4: Deleting journal volumes when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Journal Vol,Delete,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
+{LDKC,JNL}={0x00,0x001}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD7:0x01,Normal end}],Num. of LDEVs=1
+{LDKC,JNL}={0x00,0x002}
++{LDKC:CU:LDEV,Result}
=[{0x00:0xD8:0x21,Normal end}],Num. of LDEVs=1
+Num. of JNLs=2
```

Basic Information (Adding or deleting journal volumes when the copy type is URMF)

Parameter	Description
Add	Indicates the addition of journal volumes
Delete	Indicates the deletion of journal volumes

Detailed Information (Adding or deleting journal volumes when the copy type is URMF)

Item	Description
Copy Type	The program product name for this operation URMF: Universal Replicator for Mainframe
LDKC	The LDKC number to which the journal belongs
JNL	The journal number
Timer Type	Type of the clock used for the consistency time System: Uses the system clock of the mainframe host of the primary site. Local: Does not use the system clock. None: Uses the system clock of the mainframe host of the primary site when data copying is from the storage system of the secondary site to the storage system of the primary site. This information is output when the parameter is Add.
Owner	The ownership to which the journal belongs This information is output when the parameter is Add.
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers of the volume
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of LDEVs	The number of LDEVs set for the journal
Num. of JNLs	The number of journals

Example 5: Deleting journals when the copy type is UR or URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Journal Vol,Delete JNL,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{LDKC,JNL,Result}
=[{0x00,0x001,Normal end},{0x00,0x003,Normal end},
{0x00,0x005,Normal end}],Num. of JNLs=3
```

Basic Information

Parameter	Description
Delete JNL	Indicates the deletion of journals

Detailed Information

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator, URMF: Universal Replicator for Mainframe
LDKC	The LDKC number to which the journal belongs
JNL	The journal number
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of JNLs	The number of journals

[Remote Replication] R-Cmd.Dev.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],R-Cmd.Dev.,Assign,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{LDKC,JNL,MirrorID,R-Cmd.Dev.(LDKC:CU:LDEV),Result}
=[{0x00,0x001,0x01,0x00:0x12:0x34,Normal end},
{0x00,0x010,0x02,0x00:0x56:0x78,Normal end}],
Num. of Mirrors=2
```

Basic Information

Parameter	Description
Assign	The remote command device is assigned.
Release	The remote command device is released.

Detailed Information

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator, URMF: Universal Replicator for Mainframe
LDKC	The LDKC number to which the journal belongs

Item	Description
JNL	The journal number
MirrorID	The mirror ID
R-Cmd.Dev. (LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the remote command device. The hyphen (-) indicates • When assigning a remote command device without specifying a remote command device as a parameter. • When releasing a remote command device.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Mirrors	The number of mirrors on which the setting is changed

[Remote Replication] Resync Pairs

Example 1: when the copy type is TC

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Resync Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
Fence Level,Copy Pace,Priority,Result}
=[{1A-0x00-0,1B-0x00-0,Never,15,256,Normal end},
{1A-0x00-1,1B-0x00-1,Never,15,256,Normal end},(Snip)-(Snip)],
Num. of Pairs=xx
```

Detailed Information 1

Item	Description
Copy Type	The program product name for this operation TC: TrueCopy
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary volume
Fence Level	Configured fence level (conditions where the local storage system rejects write operations to the primary volume) Never: Can write to the primary volume even the pair is split. Data: Cannot write to the primary volume when update copying fails. Status: Cannot write to the primary volume, only when the storage system of the primary site cannot change the pair status of the secondary volume to PSUE.
Copy Pace	The setting of the initial copy speed (the number of tracks that can be copied at a time)

Item	Description
Priority	The priority of resynchronizing operation set (scheduling order)
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of resynchronized pairs

Example 2: when the copy type is TCMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Resync Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TCMF,{P-VOL(LDKC:CU:LDEV),S-VOL(LDEV),Fence Level,
Copy Pace,Priority,TS,Result}
=[{0x00:0x00:0x00,0xFE,Never,15,256,Enable,Normal end},
{0x00:0x00:0x01,0xFF,Never,15,256,Enable,Normal end},
(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 2

Item	Description
Copy Type	The program product name for this operation TCMF: TrueCopy for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary volume
S-VOL(LDEV)	The LDEV number of the secondary volume
Fence Level	Configured fence level (conditions where the local storage system rejects write operations to the primary volume) Never: Can write to the primary volume even the pair is split. Data: Cannot write to the primary volume when update copying fails. Status: Cannot write to the primary volume, only when the storage system of the primary site cannot change the pair status of the secondary volume to Suspend.
Copy Pace	The setting of the initial copy speed (the number of tracks that can be copied at a time)
Priority	The priority of resynchronizing operation set (scheduling order)
TS	Indicates whether to transfer the host I/O time stamp to the secondary volume when resynchronizing a pair Enable: Transfer, Disable: Not transfer
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code

Item	Description
Num. of Pairs	The number of resynchronized pairs

Example 3: when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Resync Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),MirrorID,
S/N,CTRLID,Priority,CTG,Range,M-JNL,R-JNL,Error Level,
Resync Mode,Result}
=[{4C-0x00-0,4A-0x00-0,0x00,67676,6,32,0x000,LU,0x001,0x001,
Mirror,Normal,Normal end},
{4C-0x00-1,4A-0x00-1,0x00,67676,6,32,0x000,LU,0x001,0x001,
Mirror,Normal,Normal end}],
Num. of Pairs=2
```

Detailed Information 3

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary data volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary data volume
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Priority	The priority of resynchronizing operation set (scheduling order)
CTG	The consistency group ID
Range	The applicable range of resynchronization Mirror: All the pairs are resync that exist in the same mirror as the pair. LU: Only the pair is resync.
M-JNL	The master journal number
R-JNL	The restore journal number
Error Level	Range of the pair split at failure occurrence Mirror: When a pair fails, all the pairs are split that exist in the same mirror as the pair. LU: When a pair fails, only the pair is split.
Resync Mode	Type of the pair resynchronization operation

Item	Description
	Normal: normal resync, Delta: delta resync, Return to standby: return to standby status
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of resynchronized pairs

Example 4: when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Resync Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
+{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MirrorID,S/N,CTRLID,
Priority,Range,M-JNL,R-JNL,Error Level,Resync Mode,Result}
=[{0x00:0x00:0x00,0x00:0x20:0x00,0x00,65432,6,7,Volume,0x002,
0x000,Volume,Normal,Normal end},
-{0x00:0x00:0x01,0x00:0x20:0x01,0x00,65432,6,7,Volume,0x003,
0x001,Volume,Normal,Normal end}],Num. of Pairs=2
```

Detailed Information 4

Item	Description
Copy Type	The program product name for this operation URMF: Universal Replicator for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary data volume
S-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the secondary data volume
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Priority	The priority of resynchronizing operation set (scheduling order)
Range	The applicable range of resynchronization Mirror: All the pairs are resync that exist in the same mirror as the pair. Volume: Only the pair is resync.
M-JNL	The master journal number
R-JNL	The restore journal number

Item	Description
Error Level	Range of the pair split at failure occurrence Mirror: When a pair fails, all the pairs are split that exist in the same mirror as the pair. Volume: When a pair fails, only the pair is split.
Resync Mode	Type of the pair resynchronization operation Normal: normal resync, Delta: delta resync, Return to standby: return to standby status
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of resynchronized pairs

Example 5: when the copy type is GAD

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Resync Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=GAD,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
S/N_P,S/N_S,Type,Path Gr.ID,Controller ID,SSID_P,SSID_S,
Copy Pace,Quorum Disk ID,MirrorID,Swap,Range,CTG,Result}=
-[{1A-0x00-0,GR-0xFE-1023,62345,62345,P-VOL,0x00,7,0x0004,
0x0004,15,0x00,1,Yes,Group,0x000,Normal end},
(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 5

Item	Description
Copy Type	The program product name for this operation GAD: global-active device
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary volume
S/N_P	The serial number of the local storage system
S/N_S	The serial number of the remote storage system
Type	The volume type of the volume on the local storage system P-VOL: Primary volume, S-VOL: Secondary volume
Path Gr.ID	Path group ID used in a global-active device pair
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
SSID_P	The SSID of the primary volume

Item	Description
SSID_S	The SSID of the secondary volume
Copy Pace	The setting of the initial copy speed (the number of tracks that can be copied at a time)
Quorum Disk ID	The quorum disk ID used by global-active device
MirrorID	The mirror ID
Swap	Indicate whether the attributes of the primary and secondary volumes are swapped. No: Not swapped, Yes: Swapped
Range	The applicable range of resynchronization Volume: Only this volume, Group: All volumes in the consistency group to which this volume belongs
CTG	The consistency group ID A hyphen (-) is displayed when the volume does not belong to a consistency group.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of resynchronized pairs

[Remote Replication] Split Pairs

Example 1: when the copy type is TC

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Split Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TC,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
Type,S-VOL Write,Kind,Result}
=[{1A-0x00-0,1B-0x00-0,P-VOL,Disable,S-VOL,Normal end},
{1A-0x00-1,1B-0x00-1,P-VOL,Disable,S-VOL,Normal end},
(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 1

Item	Description
Copy Type	The program product name for this operation TC: TrueCopy
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary volume
Type	The volume type of the volume on the primary site

Item	Description
	P-VOL: Primary volume, S-VOL: Secondary volume
S-VOL Write	Indicates whether the writing to the secondary volume is enabled Enable: Writing is enabled, Disable: Writing is disabled
Kind	Indicates whether the primary volume is writable after splitting a pair. P-VOL Failure: Not writable S-VOL: Writable
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of split pairs

Example 2: when the copy type is TCMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Split Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=TCMF,{VOL(LDKC:CU:LDEV),PairVOL(LDEV),
Type,SSB,Kind,Result}
=[{0x00:0x00:0x00,0xFE,P-VOL,Disable,S-VOL,Normal end},
{0x00:0x00:0x01,0xFF,P-VOL,Disable,S-VOL,Normal end},
(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information 2

Item	Description
Copy Type	The program product name for this operation TCMF: TrueCopy for Mainframe
VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the volume on the primary site
PairVOL(LDEV)	The LDEV number of the paired volume
Type	The volume type of the connected volume P-VOL: Primary volume, S-VOL: Secondary volume
SSB	Whether to notify SSB (F/M = FB) to the host Enable: Notifies SSB, Disable: Does not notify SSB
Kind	Indicates whether the primary volume is writable after splitting a pair. P-VOL Failure: Not writable S-VOL: Writable
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end

Item	Description
	where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of split pairs

Example 3: when the copy type is UR

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Split Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=UR
+{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),MirrorID,
S/N,CTRLID,Type,S-VOL Write,Range,Suspend Mode,Result}
=[{4C-0x00-0,4A-0x00-0,0x00,67676,6,P-VOL,Disable,LU,
Flush,Normal end},
{4C-0x00-1,4A-0x00-1,0x00,67676,6,P-VOL,Disable,LU,
Flush,Normal end}],
Num. of Pairs=2
```

Detailed Information 3

Item	Description
Copy Type	The program product name for this operation UR: Universal Replicator
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary data volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary data volume
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Type	Indicates whether the split data volume is a primary or secondary data volume P-VOL: Primary, S-VOL: Secondary
S-VOL Write	Indicates whether the writing to the secondary volume is enabled Disable: Disabled, Enable: Enabled
Range	The split range Mirror: All the pairs are split that exist in the same mirror as the pair. LU: Only the pair is split.
Suspend Mode	Indicates how to handle updated data that is not reflected in the secondary volume. Flush: The updated data is reflected when splitting a pair.

Item	Description
	Purge: The updated data is not reflected when splitting a pair. However, the updated data is reflected when the pair is resynchronized later.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of split pairs

Example 4: when the copy type is URMF

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Split Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=URMF
++{P-VOL(LDKC:CU:LDEV),S-VOL(LDKC:CU:LDEV),MirrorID,S/N,
CTRLID,Type,S-VOL Write,Range,Suspend Mode,Result}
=[{0x00:0x00:0x00,0x00:0x20:0x00,0x00,65432,6,
P-VOL,Disable,Volume,Flush,Normal end},
{0x00:0x00:0x01,0x00:0x20:0x00,0x01,65432,6,
P-VOL,Disable,Volume,Flush,Normal end}],Num. of Pairs=2
```

Detailed Information 4

Item	Description
Copy Type	The program product name for this operation URMF: Universal Replicator for Mainframe
P-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the primary data volume
S-VOL(LDKC:CU:LDEV)	The LDKC, CU, and LDEV numbers of the secondary data volume
MirrorID	The mirror ID
S/N	The serial number of the RCU
CTRLID	The controller ID of the RCU 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
Type	Indicates whether the split data volume is a primary or secondary data volume P-VOL: Primary, S-VOL: Secondary
S-VOL Write	Indicates whether the writing to the secondary volume is enabled Disable: Disabled, Enable: Enabled
Range	The split range Mirror: All the pairs are split that exist in the same mirror as the pair.

Item	Description
	Volume: Only the pair is split.
Suspend Mode	Indicates how to handle updated data that is not reflected in the secondary volume. Flush: The updated data is reflected when splitting a pair. Purge: The updated data is not reflected when splitting a pair. However, the updated data is reflected when the pair is resynchronized later.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of split pairs

[Remote Replication] Suspend Pairs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Remote Replication],Suspend Pairs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Copy Type=GAD,{P-VOL(Port-G-ID-LUN),S-VOL(Port-G-ID-LUN),
S/N_P,S/N_S,Type,SSID_P,SSID_S,Kind,CTG,Range,
Swap,MirrorID,Result}
=[{1A-0x00-0,GR-0xFE-1023,62345,62345,P-VOL,0x0008,0x000C,S-VOL,
-,Volume,No,0,Normal end},
{1A-0x00-0,GR-0xFE-1023,62345,62345,P-VOL,0x0008,0x000C,S-VOL,
-,Volume,No,0,Normal end},(Snip)-(Snip)],Num. of Pairs=xx
```

Detailed Information

Item	Description
Copy Type	The program product name for this operation GAD: global-active device
P-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the primary volume
S-VOL(Port-G-ID-LUN)	The port number, host group number, and LUN of the secondary volume
S/N_P	The serial number of the local storage system
S/N_S	The serial number of the remote storage system
Type	The volume type of the volume on the local storage system P-VOL: Primary volume, S-VOL: Secondary volume
SSID_P	The SSID of the primary volume
SSID_S	The SSID of the secondary volume

Item	Description
Kind	Indicates whether the primary volume is writable after suspending a pair. P-VOL Failure: Not writable S-VOL: Writable
CTG	The consistency group ID A hyphen (-) is displayed when Range is Volume.
Range	The applicable range of suspension Volume: Only this volume, Group: All volumes in the consistency group to which this volume belongs
Swap	Indicate whether the attributes of the primary and secondary volumes are swapped. No: Not swapped, Yes: Swapped, Rollback: Returning the pair status of the secondary volume to PSUS from SSWS
MirrorID	The mirror ID
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Pairs	The number of suspended pairs

SNMP Descriptions

[SNMP] Edit SNMP Agent

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SNMP],Edit SNMP Agent,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Install=Disable
+Manager=[(158.214.133.1),(158.214.133.2),(158.214.133.3),
(1:0:0:0:0:0:0:1),(snip)
-(158.214.133.31),(158.214.133.32) ,(AAAA:0:0:0:0:0:0:FFFF)],
Num. of Managers=xx
+Community
=12345678911234567892123456789312345678941234567895123456789612345678971234567898123456789912345678901234567891123456789212345678931234567894123456789
+++Trap=[(158.214.133.1),(158.214.133.2),(158.214.133.3),
(1:0:0:0:0:0:0:1),(snip)
-(158.214.133.31),(158.214.133.32) ,(AAAA:0:0:0:0:0:0:FFFF)],
Num. of Traps=xx
(snip)
+Num. of Communities=xx
+System Group(Name,Contact,Location)
={12345678911234567892123456789312345678941234567895123456789612
```

```
345678971234567898123456789912345678901234567891123456789212345678,
-12345678911234567892123456789312345678941234567895123456789612345678971234567898123456789912345678901234567891123456789212345678931234567894123456789512345678961234567897123456789812345678991234567890123456789112345678921234567893123456789412345678951234567896123456,
-12345678911234567892123456789312345678941234567895123456789612345678971234567898123456789912345678901234567891123456789212345678931234567894123456789512345678961234567897123456789812345678991234567890123456789112345678921234567893123456789412345678951234567896123456}
```

Detailed Information

Item	Description
Install	The setting status of SNMP Agent: Enable, Disable
Manager	The IP address of the registered SNMP manager. The IP address divided by periods (.) is an Ipv4 address, and the IP address divided by colons (:) is an Ipv6 address.
Num. of Managers	The number of registered SNMP managers
Community	The registered community name
Trap	The IP address where the trap of community is reported. The IP address divided by periods (.) is an Ipv4 address, and the IP address divided by colons (:) is an Ipv6 address.
Num. of Traps	The number of traps reported
Num. of Communities	The number of registered communities
System Group	The setting of system group information (Name, Contact, and Location).
Name	The nickname of the device set.
Contact	The setting name of the system administrator.
Location	The setting location of the device set

Server Priority Manager Descriptions

[SPM] Change SPMGrp

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Change SPMGrp,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{SPM Group,Priority,UpperLimit,Mode}
=[{XXXXXXXXXXXXXXXX,Non-Prio,XXXXXXXX,IOPS}],Num. of SPM Groups=1
```

Detailed Information

Item	Description
SPM Group	An SPM group name
Priority	An attribute specified to an HBA (host bus adapter) in the SPM group after the change Prio: a prioritized WWN Non-Prio: a non-prioritized WWN
Upper Limit	An upper limit when you specify Non-Prio When you specify Prio, this information is not output.
Mode	The type of rate when you specify an upper limit. IOPS: the I/O rate KB/s: the transfer rate When you specify Prio, this information is not output.
Num. of SPM Groups	The number of SPM groups whose settings are changed

Note:

- When the attribute of the host bus adapter in the SPM group changes from a prioritized WWN to a non-prioritized WWN, "Non-Prio" is output to Priority and "0" is output to Upper limit respectively.
- If multiple changes in settings such as Priority and Upper limit are made in succession and then **Apply** is clicked at the end of the operation, these set values are output one by one in the order they were configured.

[SPM] Clear SPM Info

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Clear SPM Info,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[SPM] Default Set

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Default Set,Kind=WWN,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

Basic Information

Parameter	Description
Kind=Port	Indicates that settings in the Port tab are initialized.

Parameter	Description
Kind=WWN	Indicates that settings in the WWN tab are initialized.

[SPM] Set All Prio Port

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Set All Prio Port,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{AllPriority,Threshold,Mode}={Enable,XXXXXXXX,IOPS}
```

Detailed Information

Item	Description
AllPriority	Settings in the All Thresholds field in the Port tab Enable: All Thresholds is configured. Disable: Settings in the All Thresholds field are canceled.
Threshold	A configured value in the All Thresholds field. This information is output only when All Thresholds is configured.
Mode	The type of rate for All Thresholds IOPS: the I/O rate KB/s: the transfer rate This information is output only when All Thresholds is configured.

[SPM] Set All Prio WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Set All Prio WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{AllPriority,Threshold,Mode}={Enable,XXXXXXXX,IOPS}
```

Detailed Information

Item	Description
AllPriority	Settings in the All Thresholds field in the WWN tab Enable: All Thresholds is configured. Disable: Settings in the All Thresholds field are canceled.
Threshold	A configured value in the All Thresholds field. This information is output only when All Thresholds is configured.
Mode	The type of rate for All Thresholds IOPS: the I/O rate

Item	Description
	KB/s: the transfer rate This information is output only when All Thresholds is configured.

[SPM] Set Ctrl Kind

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Set Ctrl Kind,Kind=WWN,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

Basic Information

Parameter	Description
Kind=Port	Indicates that you switched a definition of the server priority by a port without configuring All Thresholds.
Kind=All Port	Indicates that you switched a definition of the server priority by a port with configuring All Thresholds.
Kind=WWN	Indicates that you switched a definition of the server priority by a WWN. This information is output whichever All Thresholds is configured or not.

[SPM] Set Prio Port

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Set Prio Port,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,Priority,Use,Threshold/Upper Limit,Mode}
=[{1A,Non-Prio,Enable,XXXXXXXX,IOPS}],Num. of Ports=1
```

Detailed Information

Item	Description
Port	A name of the port
Priority	An attribute specified to the port Prio: a prioritized port Non-Prio: a non-prioritized port
Use	When the port is a prioritized port, this information indicates whether a threshold is specified or not. When the port is a non-prioritized port, this information indicates whether an upper limit is specified or not. Enable: specified

Item	Description
	Disable: not specified
Threshold/Upper Limit	When the port is a prioritized port, this information indicates the threshold. When the port is a non-prioritized port, this information indicates the upper limit. This information is output only when a threshold or an upper limit is specified.
Mode	The type of rate for the threshold or the upper limit IOPS: the I/O rate KB/s: the transfer rate This information is output only when a threshold or an upper limit is specified.
Num. of Ports	The number of ports whose settings are changed

[SPM] Set Prio WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Set Prio WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{WWN,Priority,Upper Limit,Mode}
=[{0xXXXXXXXXXXXXXXXX,Non-Prio,XXXXXXXX,IOPS}],Num. of WWNs=1
```

Detailed Information

Item	Description
WWN	A WWN of an HBA A WWN is a 16-digit number in the hexadecimal format.
Priority	An attribute specified to the HBA Prio: a prioritized WWN Non-Prio: a non-prioritized WWN
Upper Limit	When the WWN is a non-prioritized WWN, this information indicates the upper limit. When the WWN is a prioritized WWN, this information is not output.
Mode	The type of rate for the upper limit IOPS: the I/O rate KB/s: the transfer rate This information is not output when the WWN is a prioritized WWN.
Num. of WWNs	The number of WWNs of HBAs whose settings are changed

Note:

- When the attribute of the host bus adapter changes from a prioritized WWN to a non-prioritized WWN, "Non-Prio" is output to Priority and "0" is output to Upper limit respectively.
- If multiple changes in settings such as Priority and Upper limit are made in succession and then **Apply** is clicked at the end of the operation, these set values are output one by one in the order they were configured.

[SPM] SPMGrp Del/Chg

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],SPMGrp Del/Chg,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Mode,SPM Group,Change Name}
=[{Update,XXXXXXXXXXXXXXX,XXXXXXXXXXXXXXX}],
Num. of SPM Groups=1
```

Detailed Information

Item	Description
Mode	An executed operation Delete: Deleted an SPM group. Update: Changed an SPM name.
SPM Group	An SPM group name where the operation is executed
Change Name	An SPM group name after the change This information is output only when an SPM group name is changed.
Num. of SPM Groups	The number of SPM groups that are deleted or whose names are changed

[SPM] Update Port WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Update Port WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Mode,WWN,SPM Name,Priority}
={Add WWN,0xXXXXXXXXXXXXXXX,XXXXXXXXXXXXXXX,Non-Prio},
++Port=[1A,3A],Num. of Ports=2,
-Num. of WWNs=1
```

Detailed Information

Item	Description
Mode	An executed operation Add WWN: Added a WWN (an HBA is monitored).

Item	Description
	Delete WWN: Deleted a WWN (an HBA is not monitored).
WWN	An added or deleted WWN A WWN is a 16-digit number in the hexadecimal format.
SPM Name	An SPM name for an added or deleted HBA
Priority	An attribute specified to the HBA Prio: a prioritized WWN Non-Prio: a non-prioritized WWN This information is output only when a WWN (HBA) is added.
Port	A name of the port where the HBA is added
Num. of Ports	The number of ports where the HBA is added
Num. of WWNs	The number of added or deleted WWNs

[SPM] Update SPMGrp

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Update SPMGrp,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UpdateMode,SPM Group,Priority,Upper Limit,Mode}
=[{Add New Group,XXXXXXXXXXXXXXXX,Non-Prio,XXXXXXXX,IOPS},
++WWN=[0xXXXXXXXXXXXXXXXX,0xXXXXXXXXXXXXXXXX],Num. of WWNs=2],
+Num. of SPM Group=1
```

Detailed Information

Item	Description
Update Mode	An executed operation Add New Group: Added a new SPM group. Add WWN: Added an HBA to the SPM group Delete WWN: Deleted an HBA from the SPM group
SPM Group	An SPM group name
Priority	An attribute specified to the HBA Prio: a prioritized WWN Non-Prio: a non-prioritized WWN This attribute is applied to all HBAs in the SPM group. This information is output only when you add a new SPM group.
Upper Limit	When an attribute specified to the SPM group is Non-Prio, this information indicates an upper limit of the HBAs in the SPM group. This information is output only when you add a new SPM group.
Mode	The type of rate when you specify an upper limit. IOPS: the I/O rate

Item	Description
	KB/s: the transfer rate This information is output only when you add a new SPM group.
WWN	WWNs of HBAs in the SPM group A WWN is a 16-digit number in the hexadecimal format. All WWNs are output for this item. You can add up to 32 WWNs to a SPM group.
Num. of WWNs	The number of WWNs of added or deleted HBAs
Num. of SPM Group	The number of SPM groups whose settings are changed

[SPM] Update WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[SPM],Update WWN,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Update Mode,WWN,Change SPM Name,Change WWN}
={Change WWN,0xXXXXXXXXXXXXXXXX,,0xXXXXXXXXXXXXXXXX},
Num. of WWNs=1
```

Detailed Information

Item	Description
Update Mode	An executed operation Change WWN: Changed an HBA. Change Nickname: Changed an SPM name for a WWN
WWN	A WWN of the HBA A WWN is a 16-digit number in the hexadecimal format. When you changed an HBA, the WWN before the change is output.
Change SPM Name	An SPM name for the HBA When you changed an SPM name for the HBA, the SPM name after the change is output.
Change WWN	An WWN of the HBA after the change This information is output only when an HBA is changed.
Num. of WWNs	The number of HBAs whose settings are changed

Spreadsheet Descriptions

[Spreadsheet] CflSet End

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Spreadsheet],CflSet End,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[Spreadsheet] CflSet Start

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[Spreadsheet],CflSet Start,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Input,Output}={C:\Set_IN.spd,C:\Set_OUT.spd}
```

Detailed Information

Parameter	Description
Input	Indicates the name of the input file
Output	Indicates the name of the output file

Universal Volume Manager Descriptions

[UVM] Add External Volumes

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Add External Volumes,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Vendor,Product,Serial,VolumeID1,VolumeID2,Device,
Capa(blocks),ExGroup,PathGroup,CLPR,Emulation,Cache,Inflow,
MP Blade ID,LoadBalanceMode,ALUA Permitted,Result}
={HITACHI,9500V,28528,0001,
00000000000000000000000000000000000000000000000000000000000000000000,
DF600F,4294967296,E1-1,1,0,OPEN-V,Enable,Disable,Auto,
Extended Round-robin,Enable,Normal end}
++{Port,WWN,LUN,PathResult}=[{1A,50560E8000C3E211,1,Normal end},
{2A,50560E8000C3E212,1,Normal end},
{3A,50560E8000C3E213,1,Normal end},
{4A,50560E8000C3E214,1,Normal end}],Num. of Paths=4
++{LDKC:CU:LDEV,LDEVCapa(blocks),SSID,LDEV MP Blade ID,LDEVResult}
=[{0x00:0x00:0x00,96000,0x00D8,Auto,Normal end},
{0x00:0x00:0x01,96000,0x00D8,Auto,Normal end}],Num. of LDEVs=2
+{Vendor,Product,Serial,VolumeID1,VolumeID2,Device,
Capa(blocks),ExGroup,PathGroup,CLPR,Emulation,Cache,Inflow,
MP Blade ID,LoadBalanceMode,ALUA Permitted,Result}
```

```
={HITACHI,9500V,28528,0001,
00000000000000000000000000000000000000000000000000000000000000000000000000000000,
DF600F,4294967296,E1-1,1,0,OPEN-V,Enable,Disable,Auto,
Extended Round-robin,Enable,Normal end}
++{Port,WWN,LUN,PathResult}=[{1A,50560E8000C3E211,2,Normal end},
{2A,50560E8000C3E212,2,Normal end}],Num. of Paths=2,
++{LDKC:CU:LDEV,LDEVCapa(blocks),SSID,LDEV MP Blade ID,LDEVResult}
=[{0x00:0x01:0x00,4294967296,0x00D8,Auto,Normal end}],
Num. of LDEVs=1
+Num. of Volumes=2
```

Detailed Information

Item	Description
Vendor	The name of the vendor of the external storage system that the mapped external volume exists
Product	The product name of the external storage system that the mapped external volume exists
Serial	The serial number the external storage system that the mapped external volume exists
VolumeID1	The identification character 1 of the mapped external volume
VolumeID2	The identification character 2 of the mapped external volume
Device	The device name that the mapped external volume notifies to the host
Capa(blocks)	The capacity of the mapped external volume indicated by blocks
ExGroup	The number of the external volume group and the reference number assigned to the external volume of the mapped external volume. The number on the left of a dash (-) is the external volume number and the number on the right of the dash (-) is the reference number of the group.
PathGroup	The path group number of the mapped external volume
CLPR	The CLPR number of the mapped external volume
Emulation	The emulation type of the mapped external volume
Cache	The cache mode of the mapped external volume Enable: Enabled, Disable: Disabled
Inflow	The inflow control setting of the cache of the mapped external volume. Enable: Enabled, Disable: Disabled
MP Blade ID	MP Blade ID specified for the external volume When an MP Blade ID is specified automatically, "Auto" is output.
LoadBalanceMode	The load balance mode of the mapped external volume Normal Round-robin, Extended Round-robin, or Disable will appear.
ALUA Permitted	The ALUA permitted of the mapped external volume Enable: Enabled, Disable: Disabled
Result	The result of the operation

Item	Description
	Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Port	The port name of the external port of the local storage system
WWN	The WWN of the Target port of the external storage system
LUN	The LUN of the external volume
Num. of Paths	The number of mapping path (Port-WWN-LUN) configured
PathResult	The result of attempting to create an external path. If the path is created normally, the audit log includes the following: PathResult: Normal end If the path is not created, the audit log includes this: PathResult: Error(xxxx-yyyyy): Abnormal end where xxxx is the Part code and yyyyy is the Error code
LDKC:CU:LDEV	The LDKC number, CU, and LDEV number of the LDEVs in the mapped external volume. The number on the left of the colon is an LDKC number, the number between the colons is a CU number, and the number on the right of the colon is an LDEV number
LDEVCapa(blocks)	The capacity of LDEVs in the mapped external volumes indicated by blocks
SSID	The SSID
LDEV MP Blade ID	MP Blade ID specified for the LDEV. When an MP Blade ID is specified automatically, "Auto" is output.
LDEVResult	The result of attempting to create an external path. If the LDEV is created normally, the audit log includes the following: LDEVResult: Normal end If the LDEV is not created, the audit log includes this: LDEVResult: Error(xxxx-yyyyy): Abnormal end where xxxx is the Part code and yyyyy is the Error code
Num. of LDEVs	The number of LDEVs in the mapped external volumes
Num. of Volumes	The number of mapped external volumes

[UVM] Assign MP Blade

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Assign MP Blade,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Group,MP Blade ID,Result}=[{E1-1,0x0,Normal end},
{E1-2,0x1,Normal end},{E1-3,0x2,Normal end}],Num. of Groups=3
```

Detailed Information

Item	Description
Group	The external volume number for the configured external volumes
MP Blade ID	The MP Blade ID assigned to the external volume
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Groups	The number of groups of configured external volumes

[UVM] Delete ES VOLs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Delete ES VOLs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{ExGroup,Mode,Result}=[{E1-1,Force,Normal end},{E1-2,Force,
Normal end},{E1-3,Normal,Normal end}],Num. of Volumes=3
```

Detailed Information

Item	Description
ExGroup	The number of the external volume group and the reference number assigned to the external volume of the external volume that the mapping has been released. The number on the left of a dash (-) is the external volume number and the number on the right of the dash (-) is the reference number of the group.
Mode	The mode of execution when mapping was released Normal: normal execution. Force: forcible execution
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Volumes	The number of volumes in the external volumes that mapping has been released

[UVM] Disconnect ES Paths

This logged information indicates that this Disconnect External Paths operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Disconnect ES Paths,,Normal end,
```

```
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,WWN,Result}=[{1A,50560E8000C3E211,Normal end},
{1A,50560E8000C3E211,Normal end},{2A,50560E8000C3E212,
Normal end}],Num. of Paths=3
```

Detailed Information

Item	Description
Port	The port name of the external port of the local storage system
WWN	The WWN of the Target port of the external storage system
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Paths	The number of mapping paths that has been disconnected.

[UVM] Disconnect ES VOLs

If this operation is performed from Device Manager - Storage Navigator, this logged information indicates that the Disconnect External Volumes operation was only requested but not completed. However, if this operation is performed from the External API (if this logged information appears between the CflSet Start operation and the CflSet End operation), this logged information indicates that the Disconnect External Volumes operation was completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Disconnect ES VOLs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,Seq.=xxxxxxxxxx
+{Group,Result}=[{E1-1,Normal end},{E1-2,Normal end},
{E1-3,Normal end},{E1-4,Normal end}],Num. of Groups=4
```

Detailed Information

Item	Description
Group	The group number of the disconnected external volume
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Groups	The number of external volume groups that contain the disconnected external volume

[UVM] Edit ES Path Config

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Edit ES Path Config,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{ExGroup,PathGroup,Result}={E1-1,1,Normal end}
++{Port,WWN,LUN,PathResult}
=[{1A,50560E8000C3E211,1,Normal end},
{2A,50560E8000C3E212,1,Normal end},
{3A,50560E8000C3E213,1,Normal end},
{4A,50560E8000C3E214,1,Normal end}],Num. of Paths=4
+{ExGroup,PathGroup,Result}={E1-2,1,Normal end}
++{Port,WWN,LUN,PathResult}
=[{1A,50560E8000C3E211,2,Normal end},
{2A,50560E8000C3E212,2,Normal end},
{3A,50560E8000C3E213,2,Normal end},
{4A,50560E8000C3E214,2,Normal end}],Num. of Paths=4
+Num. of Volumes=2
```

Detailed Information

Item	Description
ExGroup	The number of the external volume group and the reference number assigned to the external volume of the external volume that the mapping path configuration has been changed. The number on the left of a dash (-) is the external volume number and the number on the right of the dash (-) is the reference number of the group.
PathGroup	The path group number of the external volume that the mapping path configuration has been changed
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Port	The port name of the external port of the local storage system
WWN	The WWN of the Target port of the external storage system
LUN	The LUN of the external volume
PathResult	The result of editing the path Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Paths	The number of mapping path (Port-WWN-LUN) set
Num. of Volumes	The number of external volumes that the mapping path configuration has been changed

[UVM] Edit ES VOLs

Example 1: Change the cache mode

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Edit ES VOLs,CacheMode,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Group,Result}
=[{E1-1,Enable,Normal end},{E1-2,Enable,Normal end},
{E1-3,Enable,Normal end},{E1-4,Enable,Normal end}],
Num. of Groups=4
```

Example 2: Set the cache inflow control

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Edit ES VOLs, InflowControl,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Group,Mode,Result}=[{E1-1,Enable,Normal end},
{E1-2,Enable,Normal end},{E1-3, Enable,Normal end},
{E1-4, Enable,Normal end}],Num. of Groups=4
```

Basic Information for Example 1 and 2

Parameter	Description
Cachemode	The cache mode is changed.
InflowControl	The cache inflow control is set.

Detailed Information for Example 1 and 2

Item	Description
Group	External volume group number for the executed setting operation
Mode	Whether the setting is enabled or disabled Enable: Enabled, Disable: Disabled
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Groups	The number of external volumes groups configured

Example 3: Changing a load balance mode

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Edit ES VOLs,LoadBalanceMode,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Group,Mode,Result}=[{E1-1,Normal Round-robin,Normal end},
{E1-2,Normal Round-robin,Normal end}],Num. of Groups=2
```

Basic Information for Example 3

Parameter	Description
LoadBalanceMode	The load balance mode is changed.

Detailed Information for Example 3

Item	Description
Group	External volume group number for the executed setting operation
Mode	The load balance mode after the change Normal Round-robin, Extended Round-robin, or Disable will appear.
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Groups	The number of external volumes groups configured

Example 4: Changing ALUA Permitted

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Edit ES VOLs,ALUA Permitted,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Group,ALUA Permitted,Result}=[{E1-1,Enable,Normal end},
{E1-2,Enable,Normal end}],Num. of Groups=2
```

Basic Information for Example 4

Parameter	Description
ALUA Permitted	The ALUA Permitted is changed.

Detailed Information for Example 4

Item	Description
Group	The external volume group number of the external volume on which the setting is performed
ALUA Permitted	The ALUA permitted after the change Enable: enable, Disable: disable
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Groups	The number of external volume groups on which the setting is performed

[UVM] Edit External WWNs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Edit External WWNs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{WWN,I/O-TOV,Quedepth,LinkDown,Result}
=[{50060E8000C3E214,15,8,180,Normal end},
{50060E8000C3E214,15,8,180,Normal end},
{50060E8000C3E214,15,8,180,Normal end},Num. of WWNs=3
```

Detailed Information

Item	Description
WWN	The WWN of the external storage system
I/O-TOV	The I/O time over value setting
Quedepth	The Quedepth value (the number of commands issuable)
LinkDown	The Path Blockade watch value
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of WWNs	The number of WWNs setting of the external storage system

[UVM] Merge ES Path Grps

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Merge ES Path Grps,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PathGroup,TargetPathGroup,Result}
=[{1,2,Normal end},{1,3,Normal end},{11,12,Normal end}],
Num. of PathGroups=3
```

Detailed Information

Item	Description
PathGroup	The path group ID of the original path group
TargetPathGroup	The path group ID of the path group merged into the original path group
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code

Item	Description
Num. of PathGroups	The number of PathGroups to be merged

[UVM] ProfileUpgrade

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,[UVM],
ProfileUpgrade,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Config No.,Mode,Result}=[{10,0x00,Normal end},
{20,0x00,Normal end}],Num. of Profiles=2
```

Detailed Information

Item	Description
Config No.	The configuration number of the profile operated setting
Mode	The parameter of the execution mode on the setting operation
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Profiles	The number of Profiles operated setting

[UVM] Reconnect ES Paths

This logged information indicates that this Reconnect External Paths operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Reconnect ES Paths,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Port,WWN,Result}=[{1A,50560E8000C3E211,Normal end},
{1A,50560E8000C3E211,Normal end},{2A,50560E8000C3E212,
Normal end}],Num. of Paths=3
```

Detailed Information

Item	Description
Port	The port name of the external port of the local storage system
WWN	The WWN of the Target port of the external storage system
Result	The result of operation

Item	Description
	Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Paths	The number of mapping paths that path status has been checked.

[UVM] Reconnect ES VOLs

If this operation is performed from Device Manager - Storage Navigator, this logged information indicates that the Reconnect External Volumes operation was only requested but not completed. However, if this operation is performed from the External API (if this logged information appears between the CflSet Start operation and the CflSet End operation), this logged information indicates that the Reconnect External Volumes operation was completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Reconnect ES VOLs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Group,Result}=[{E1-1,Normal end},{E1-2,Normal end},
{E1-3,Normal end},{E1-4,Normal end}],Num. of Groups=4
```

Detailed Information

Item	Description
Group	The group number of the external volume resumed
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end *xxxx*: Part code, *yyyyy*: Error code
Num. of Groups	The number of external volumes resumed

[UVM] Split ES Path Grp

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[UVM],Split ES Path Grp,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PathGroup,NewPathGroup,ExGroup,Result}
=[{1,11,E1-11,Normal end},{1,12,E1-21,Normal end},
{2,21,E2-11,Normal end}],Num. of Volumes=3
```

Detailed Information

Item	Description
PathGroup	The path group ID of the original path group
NewPathGroup	The path group ID of a newly created path group
ExGroup	The external volume group number of the external volumes moved to the new path group, and the sequential number of the external volume. The format is "external volume group number-sequential number of the group".
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end where *xxxx*: Part code, *yyyyy*: Error code
Num. of Volumes	The number of external volumes moved to the new path group

Volume Migration Descriptions

For information on using Volume Migration, contact the Hitachi Data Systems Support Center.

[VM] Delete All Histories

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[VM],Delete All Histories,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[VM] Del Migration Plans

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[VM],Del Migration Plans,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{SourceVolume,TargetVolume,OwnerID,Result}
=[{0x00:0x00:0x00,0x00:0x00:0x01,0xFF,Normal end},
{0x00:0x00:0x02,0x00:0x00:0x03,0xFF,Error(xxxx-yyyyy)},
{0x00:0x00:0x04,0x00:0x00:0x05,-,Normal end},
{0x00:0x00:0x06,0x00:0x00:0x07,-,Error(xxxx-yyyyy)}],
Num. of Plans=4
```

Detailed Information

Item	Description
SourceVolume	The logical volume ID of the migration source. The number on the left of the colon is an LDKC number, the number between the colons

Item	Description
	is a CU number, and the number on the right of the colon is an LDEV number.
TargetVolume	The logical volume ID of the migration target. The number on the left of the colon is an LDKC number, the number between the colons is a CU number, and the number on the right of the colon is an LDEV number.
OwnerID	The application by which a migration plans to be deleted is set. 0x00: Device Manager - Storage Navigator 0x01: Command Control Interface 0xFF: Tiered Storage Manager A hyphen (-) is output, no matter which application is used for a migration plan to be set, if the plan is deleted from the Volume Migration window.
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of Plans	The number of migration plans deleted.

[VM] Migrate Volumes

This logged information indicates that the migration was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[VM],Migrate Volumes,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{SourceVolume,TargetVolume,OwnerID,Migration Type,Result}
=[{0x00:0x00:0x00,0x00:0x00:0x01,0x00,Nondisruptive Migration,
Normal end},
{0x00:0x00:0x02,0x00:0x00:0x03,0xFF,Normal,Error(xxxx-yyyyy)},
{0x00:0x00:0x04,0x00:0x00:0x05,0x00,Normal,Normal end},
{0x00:0x00:0x06,0x00:0x00:0x07,0xFF,Nondisruptive Migration,
Error(xxxx-yyyyy)}],Num. of VOLs=4
```

Detailed Information

Item	Description
SourceVolume	The logical volume ID of the migration source. The number on the left of the colon is an LDKC number, the number between the colons is a CU number, and the number on the right of the colon is an LDEV number.
TargetVolume	The logical volume ID of the migration target. The number on the left of the colon is an LDKC number, the number between the colons is a

Item	Description
	CU number, and the number on the right of the colon is an LDEV number. This value is output only when the migration plan is set.
OwnerID	The application by which a migration plans is set. 0x00: Device Manager - Storage Navigator 0x01: Command Control Interface 0xFF: Tiered Storage Manager
Migration Type	The migration type of the migration plan. Nondisruptive Migration: Nondisruptive Migration Normal: Normal
Result	The result of operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end, Not Execute: Not executed *where xxxx*: Part code, *yyyyy*: Error code
Num. of VOLs	The number of migration volumes.

Virtual Partition Manager Descriptions

[VPM] Edit CLPR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[VPM],Edit CLPR,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+CLPR=0:CLPR0,Total Cache Size=15360,Resident Cache Size=0,
Num. of Resident Extents=16384
++PG=[1-1,1-2,1-3,1-4],Num. of PGs=4
+Num. of CLPRs=1
```

Detailed Information

Item	Description
CLPR	The CLPR number and the CLPR name
Total Cache Size	The cache capacity setting. The unit is megabyte (MB).
Resident Cache Size	The Cache Residency capacity setting. The unit is megabyte (MB).
Num. of Resident Extents	The number of Cache Residency areas
PG	The parity group number assigned to CLPR E1-1: In the case of an external volume V1-1: In the case of a virtual volume

Item	Description
	X1-1: In the case of a Dynamic Provisioning volume
Num. of PGs	The number of parity groups assigned to CLPR
Num. of CLPRs	The number of CLPRs configured

Volume Shredder Descriptions

[VS] Abort Shredding

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[VS],Abort Shredding,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+OwnerID=0
```

Detailed Information

Item	Description
OwnerID	The owner ID 0: Indicates Device Manager - Storage Navigator 0xXX: Owner ID is expressed in two hexadecimal digits.

[VS] End Shredding

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,<system>,,,[VS],
End Shredding,,Normal end,,Seq.=xxxxxxxxxx
+{Times,Result}
=[{1,Normal},{2,Normal},{3,Normal}],Num. of Data=3
```

Detailed Information

Item	Description
Times	The order of the shredding processes. A number from 1 to 8 is displayed.
Result	The result of the shredding processes. Normal: Normal end. Failed: Abnormal end. Aborted: Operation aborted. Not executed: Not executed. Data transfer error: An error occurred while outputting the result to the file.

Item	Description
	Data verify error: The error occurred in verifying the data. No data assigned: No data.
Num. of Data	The number of shredding processes

[VS] Shred LDEVs

This logged information indicates that the Shredding operation was only requested but not completed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[VS],Shred LDEVs,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+OwnerID=0
+{Data, Output File}
=[{0xffff,Disable},{Random,Disable},{0x00,Enable}],
Num. of Data=3
+Output LDEV=[0x00:0x00:0x00,0x00:0x00:0x01,0x00:0x00:0x02],
Num. of LDEVs=3
+Shred LDEV=[0x00:0x00:0x00,0x00:0x00:0x01,0x00:0x00:0x02],
Num. of LDEVs=3
```

Detailed Information

Item	Description
OwnerID	The owner ID 0: Indicates Device Manager - Storage Navigator 0xXX: Owner ID is expressed in two digits of the hexadecimal format
Data	The shredding data pattern Random: Random, 0xXXXX: Define
Output File	Whether the result of shredding is output to the file Disable: No output, Enable: Output
Num. of Data	The number of shredding data patterns
Output LDEV	Indicates LDEVs whose shredding results are output to the file
Num. of LDEVs	The number of target LDEVs of Data Output
Shred LDEV	The LDEV to be shredded
Num. of LDEVs	The number of LDEVs to be shredded

Compatible XRC Descriptions

[XRC] Set XRC Option

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,,
[XRC],Set XRC Option,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{CLPR,LV2 THD(%),Block Option,Donot Block,LV1 Sleep,
Sleep Time(ms),LV1 SIM,LV2 Suspend}
=[{00,50,Cache,Disable,Disable,100,Disable,Disable},
-{1,70,Cache,Enable ,Disable,10,Disable,Disable},
-{2,60,Cache,Disable,Disable, 10,Enable ,Enable }],
Num. of CLPRs=32
```

Detailed Information

Item	Description
CLPR	The CLPR number (0 to 31).
LV2 THD(%)	The Level 2 Threshold (30, 40, 50, 60, and 70). The unit is percent (%).
Block Option	The status of Block Option Volume: Volume Level, Cache: ache Level
Donot Block	The status of Donot Block (Volume Level) Enable: enabled, Disable: disabled
LV1 Sleep	The status of Level 1 Sleep Enable: enabled, Disable: disabled
Sleep Time(ms)	The Sleep Time (10 or 100). The unit is millisecond (msec).
LV1 SIM	The status of Level 1 SIM Enable: enabled, Disable: disabled
LV2 Suspend	The status of Level 2 Suspend Enable: enabled, Disable: disabled
Num. of CLPRs	The number of CLPRs

5

Audit log examples of encryption key operations

This topic provides examples and descriptions of the audit logs produced by data encryption operations. The descriptions are listed alphabetically by function name and operation name. For detailed information on the version numbers in log output examples, see Table 1-3 Format changes for each version number on page 1-10

- ENC Descriptions
- KEK Acquisition Descriptions

ENC Descriptions

[ENC] Add keys to DKC

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Add keys to DKC,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Num. of Keys}=[1]
```

Detailed Information

Item	Description
Num. of Keys	The number of created encryption keys

[ENC] Backup Keys

This logged information is output when back up information of encryption keys is created in the storage system in order to externally back up. It does not necessarily mean that the back up information is backed up normally on the file or the key management server even if Normal End is displayed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Backup Keys,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Backup Keys to File

This logged information is output when encryption key information created in the storage system is written to the file. It does not necessarily mean that the encryption key information is backed up on the file normally even if Normal End is displayed.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Backup Keys to File,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Backup Keys to Serv

This logged information is output when encryption key information created in the storage system is backed up on the key management server. Even if Normal End is displayed, it merely means that the key management server received the request for backup and does not necessarily means that the encryption key information is backed up normally.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Backup Keys to Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UUID,Backup Date,Description,Result,Server_Repry}
=[{3E2332580B110E052D13C378866427A218EF1609881BC058FCBCF79FCD
7727C7,2013/07/06 09:20:37,BACK0706,Normal end,-}],
Num. of Keys=1
```

Detailed Information

Item	Description
UUID	The UUID of the encryption key to be backed up on the key management server
Backup Date	The date and time entered into the backup information when an encryption key is backed up on the key management server
Description	The description set in the backup information when an encryption key is backed up on the key management server
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of encryption keys to be backed up This value is fixed to "1" because all of the created encryption keys are backed up as one key.

[ENC] Change CEK Status

This information is output to the audit log information file 2, and it is asynchronous with the Device Manager - Storage Navigator operations.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,,<system>,,,[ENC],
Change CEK Status,,Normal end,,,Seq.=xxxxxxxxxx
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the number of the encryption key that is a target of the event in binary format

[ENC] Change DEK Status

This information is output to the audit log information file 2, and it is asynchronous with the Device Manager - Storage Navigator operations.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,,<system>,,,[ENC],
Change DEK Status,,Normal end,,,Seq.=xxxxxxxxxx
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the number of the encryption key that is a target of the event in binary format

[ENC] Clear Keys

This information is output to the audit log information file 2, and it is asynchronous with the Device Manager - Storage Navigator operations.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,,<system>,,,[ENC],
Clear Keys,,Normal end,,,Seq.=xxxxxxxxxx
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the number of the encryption key that is a target of the event in binary format

[ENC] Create KEK Dynamic

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Create KEK Dynamic,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UUID,Result,Server_Reply}
=[{C53F242C7DCC27CC9698A72413C1C4DC280A757FDF93CED8AEBDF8807A
79A06D,Normal end,-}],Num. of Keys=1
```

Detailed Information

Item	Description
UUID	The UUID of the created encryption key
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of created encryption keys

[ENC] Create Keys

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Create Keys,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Num. of Keys}=[1]
```

Detailed Information

Item	Description
Num. of Keys	The number of created encryption keys

[ENC] Create Keys

This information is output to the audit log information file 2, and it is asynchronous with the Device Manager - Storage Navigator operations.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,,<system>,,,[ENC],
Create Keys,,Normal end,,,Seq.=xxxxxxxxxx
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the number of the encryption key that is a target of the event in binary format

[ENC] Create Keys On Serv

Example 1: Creating encryption keys

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Create Keys On Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UUID,Tweak_UUID,Result,Server_Reply}
=[{30708B5A94F5BE54DA84E0CB55BD2CFE5ABEBECBD8309B02EB1B71F17F805617,
94DA26FE13EF6196EF15A3CCCD333CD63D6867E57CF5BD5EB3CB9DF2CDE7CE1A,
Normal end,-}],Num. of Keys=1
```

Detailed Information for Example 1

Item	Description
UUID	The UUID of the created encryption key on the key management server A hyphen (-) is displayed when an error occurred while processing.
Tweak_UUID	The UUID of the created encryption key for Tweak on the key management server A hyphen (-) is displayed when an error occurred while processing.
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of created encryption keys

Example 2: Creating key encryption keys

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Create Keys On Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Key Type,UUID,Result,Server_Reply}
=[{KEK,4365A0465C69FA96DF64C9BBB77122E9AB65D4D6A2E9BBDE5987EAB
86A0FE94E,Normal end,-}],Num. of Keys=1
```

Detailed Information for Example 2

Item	Description
Key Type	The purpose of the use of the created key KEK: key encryption keys (used as a key wrapping key)
UUID	The UUID of the created encryption key on the key management server A hyphen (-) is displayed when an error occurred while processing.
Result	The result of the operation

Item	Description
	Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of created keys

[ENC] DEK assign SpareDisk

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],DEK assign SpareDisk,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] DEK delete

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],DEK delete,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Delete KEK Dynamic

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Delete KEK Dynamic,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UUID,Result,Server_Reply}=
[{C53F242C7DCC27CC9698A72413C1C4DC280A757FDF93CED8AEBDF8807A79A06D
,Normal end,-}],Num. of Keys=1
```

Detailed Information

Item	Description
UUID	The UUID of the deleted encryption key
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of deleted encryption keys

[ENC] Delete Keys

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Delete Keys,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Key ID}=[1,2],Num. of Keys=2
```

Detailed Information

Item	Description
Key ID	A deleted encryption key number
Num. of Keys	The number of deleted encryption keys

[ENC] Delete Keys

This information is output to the audit log information file 2, and it is asynchronous with the Device Manager - Storage Navigator operations.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,,<system>,,,[ENC],
Delete Keys,,Normal end,,,Seq.=xxxxxxxxxx
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the number of the encryption key that is a target of the event in binary format

[ENC] Delete Keys on Serv

Even if Normal End is displayed, it merely means that the key management server received the request for deletion and does not necessarily means that encryption keys are deleted normally.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Delete Keys on Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UUID,Backup Date,Description,Result,Server_Reply}=
[{FBC095D54493A45CAC4BE80EECD1BE51D7E0D4023D377D37B0BFDE72B887CED9
,2013/07/06 09:13:18,BACK0706,Normal end,-}],Num. of Keys=1
```

Detailed Information

Item	Description
UUID	The UUID of the encryption key to be deleted
Backup Date	The date and time of the backup information for the encryption key to be deleted
Description	The description of the backup information for the encryption key to be deleted
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of encryption keys to be deleted

[ENC] Edit Encryption

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Edit Encryption,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{PG,Encryption}=[{XX-XX,Enable},{XX-XX,Disable}],Num. of PGs=2
```

Detailed Information

Item	Description
PG	A parity group number
Encryption	The status of encryption Enable: Encryption is enabled Disable: Encryption is disabled
Num. of PGs	The number of parity groups

[ENC] Edit ENC Settings

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Edit ENC Settings,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{KMS, Generate ENC Keys on KMS, Protect the KEK at the KMS}
=[No Set, No, No],Num. of Settings=1
```

Detailed Information

Item	Description
KMS	Indicates whether the key management server is used No Set: Not set Enable: The key management server is used Disable: The key management server is not used
Generate ENC Keys on KMS	Indicates where the encryption keys are created Yes: The keys are created on the key management server No: The keys are created on the storage system
Protect the KEK at the KMS	Indicates whether the key encryption keys created on the key management server are to be stored on the storage system Yes: The keys are stored on the storage system Yes (Disable Local Key Generation): The keys are stored but Local Key Generation is disabled No: The keys are not stored
Num. of Settings	The number of configured encryption environment settings

[ENC] Edit Password Policy

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Edit Password Policy,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Numeric Characters (0-9),Uppercase Characters (A-Z),
Lowercase Characters (a-z),Symbols,Total}={1,2,3,4,10},
Num. of Settings=1
```

Detailed Information

Item	Description
Numeric Characters (0-9)	Indicates the minimum number of numeric characters used for the password
Uppercase Characters (A-Z)	Indicates the minimum number of uppercase characters used for the password
Lowercase Characters (a-z)	Indicates the minimum number of lowercase characters used for the password
Symbols	Indicates the minimum number of symbols used for the password
Total	Indicates the minimum number of total characters used for the password
Num. of Settings	The number of configured password policies

[ENC] Register KEK Dynamic

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Register KEK Dynamic,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UUID,Result,Server_Reply}=
[{B75E9D1699659C10B088E027798ACB082F1375AF2FF613229F15E9FE70D1EC4D
,Normal end,-}],Num. of Keys=1
```

Detailed Information

Item	Description
UUID	The UUID of the registered encryption key
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of registered encryption keys

[ENC] Rekey CEK

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Rekey CEK,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Rekey KEK Dynamic

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Rekey KEK Dynamic,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Restore Keys

This logged information is output when encryption key information in the storage system is restored with key information obtained externally.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Restore Keys,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Restore Keys fr File

This logged information is output when encryption key information is obtained from the backup file.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Restore Keys fr File,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Restore Keys fr Serv

This logged information is output when the backup of encryption key information is obtained from the key management server.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Restore Keys fr Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{UUID,Backup Date,Description,Result,Server_Reply}=
[{FBC095D54493A45CAC4BE80EECD1BE51D7E0D4023D377D37B0BFDE72B887CED9
,2013/07/06 09:13:18,BACK0706,Normal end,-}],Num. of Keys=1
```

Detailed Information

Item	Description
UUID	The UUID of the encryption key that is used for restoring on the key management server
Backup Date	The date and time entered into the backup information for the encryption key that is used for restoring
Description	The contents of Description in the backup information for the encryption key that is used for restoring
Result	The result of the operation Normal end: Normal end, Error(*xxxx-yyyyy*): Abnormal end
Server_Reply	The return value from the key management server A hyphen (-) is displayed unless an error occurred while processing. For details on return values, see the manuals for each key management server.
Num. of Keys	The number of encryption keys that are used for restoring This value is fixed to "1" because all of the encryption keys that are used for restoring are backed up as one key.

[ENC] Retry KEK Dynamic

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC],Retry KEK Dynamic,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[ENC] Set Up Key Mng Serv

Example 1: Using a key management server

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Set Up Key Mng Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Server Type,Key Management Server,Host Name,Port Number,
Timeout,Retry Interval,Number of Retries,
Client Certificate File Name,Root Certificate File Name}
=[{Primary,Enable,10.213.75.37,5696,10,1,3,,},
{Secondary,Enable,10.213.75.37,5696,10,1,3,,}],
Num. of Servers=2
```

Example 2: Not using a key management server

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Set Up Key Mng Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Server Type,Key Management Server}=
[{Primary,Disable},{Secondary,Disable}],Num. of Servers=2
```

Example 3: Initializing a encryption environmental settings

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[ENC], Set Up Key Mng Serv,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+{Server Type,Key Management Server}
=[{Primary,No Set},{Secondary,No Set}],Num. of Servers=2
```

Detailed Information

Item	Description
Server Type	The type of the key management server Primary: primary server, Secondary: secondary server
Key Management Server	Indicates whether the key management server is used Enable: The server is used Disable: The server is not used No Set: The encryption environmental settings are to be initialized
Host Name	The address of the key management server
Port Number	The port number of the key management server
Timeout	The communication timeout time to the key management server
Retry Interval	The retry interval to communicate with the key management server

Item	Description
Number of Retries	The number of retries to communicate with the key management server
Client Certificate File Name	The file name of the client certificate
Root Certificate File Name	The file name of the root certificate
Num. of Servers	The number of the configured key management servers

[ENC] Use Keys for CEK/KEK

This information is output to the audit log information file 2, and it is asynchronous with the Device Manager - Storage Navigator operations.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,,<system>,,,[ENC],
Use Keys for CEK/KEK,,Normal end,,,Seq.=xxxxxxxxxx
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the number of the encryption key that is a target of the event in binary format

KEK Acquisition Descriptions

[KEK Acquisition] Acquisition Key

This logged information is output when the storage system obtains KEK Dynamic from the key management server after the power is turned on again with the KMIP mode set to ON.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[KEK Acquisition],Acquisition Key,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

[KEK Acquisition] Set Key

This logged information is output when KEK Dynamic is configured for the storage system after the power is turned on again with the KMIP mode set to ON.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,RMI AP,uid=user-name,1,
Task Name,[KEK Acquisition],Set Key,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

6

Audit log examples of commands sent from hosts

This topic provides examples and descriptions of the audit logs when a storage system receives commands sent from hosts, computers using Command Control Interface software, or hosts using Business Continuity Manager. The descriptions are listed alphabetically by function name and operation name. For detailed information on the version numbers in log output examples, see Table 1-3 Format changes for each version number on page 1-10

- Config Command (Open system)
- Config Command (Mainframe system)
- FC-SP
- User Auth

Config Command (Open system)

The following shows examples and descriptions of the audit logs when a storage system receives commands sent from hosts for open system or computers using CCI.

Add Copy Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Copy Group
++Copy Group=AAAAAAA
++Device Group={BBBBBB},Num. of Device Groups=1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Copy Group	The name of a copy group to be registered
Device Group	The name of a device group to be registered
Num. of DeviceGroups	The number of device groups to be registered
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Device Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Device Group
++Device Group=AAAAAAAA
++LDEV(LDKC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Device Group	The name of a device group to be registered

Item	Description
	When an LDEV is added, the name of the device group to which the LDEV is added is output
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be added to the device group
Num. of LDEVs	The number of LDEVs to be added to the device group
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Device Group(Nick Name)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Device Group(Nick Name)
++Device Group=AAAAAAAA,Group Name=ABCDE
++LDEV(LDKC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Device Group	The name of a device group to be changed
Group Name	The name of the device group after the change
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be added to the device group
Num. of LDEVs	The number of LDEVs to be added to the device group
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add DP Pool

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add DP Pool
++Pool ID=AA,Pool Name=AAAAAA
++LDEV(LDKC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
```

```
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool for Dynamic Provisioning to be created
Pool Name	The pool name of a pool for Dynamic Provisioning to be created No output if the pool name is not set
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of a pool volume
Num. of LDEVs	The number of pool volumes to be created
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add External Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add External Group
++PG=E1-1,Port=1A,WWN=AAAAAAAA,Path Group ID=A,LUN=A
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
Port	The port name of the storage system (connection source)
WWN	The WWN of the storage system (connection target)
Path Group ID	The path group ID
LUN	The LU number of the external volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Host Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band OPEN,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Host Group
++Port=1A,Host Group ID=0xXX,Host Group=XXXXXX,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a host group is added When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Host Group ID	The host group ID to be added
Host Group	The name of the host group to be added
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Journal(Ldev)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Journal(Ldev)
++JNLG=0x001,Kind=Open
++LDEV(LDKC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
JNLG	The journal group number
Kind	The kind of the system

Item	Description
	Open: Open system, MF: Mainframe system
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of a journal volume to be created
Num. of LDEVs	The number of journal volumes to be created
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Ldev

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Ldev
++PG=1-1,LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of an LDEV to be created If the LDEV to be created is an external volume, "E" is added on the top of the parity group number.
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the LDEV to be created
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Ldev(Dynamic Provisioning)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Ldev(Dynamic Provisioning)
++Pool ID=127,LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool to which a virtual volume of Dynamic Provisioning to be created belongs
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be created.
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Ldev(Snapshot)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Ldev(Snapshot)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be created
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add LUN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band OPEN,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add LUN
++Port=1A,Host Group ID=0xXX,LUN=A,
LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which an LU is added When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Host Group ID	The ID of a host group to which an LU is added
LUN	The LU number to be added
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be set as an LU.
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Path
++Port=1B,WWN=XXXXXXXXXXXXXXXX,Path Group ID=A
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
Port	The port name of the external storage system
WWN	The WWN of the external storage system
Path Group ID	The path group ID of the external volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add RCU

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add RCU
```

```
++S/N=XXXXX,MCU=X,RCU=X,Controller ID=7,MCU Port=1A,RCU Port=1B
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
S/N	The serial number of the remote storage system
MCU	The CU number of the local storage system "Free" is output when CU Free is selected
RCU	The CU number of the remote storage system "Free" is output when CU Free is selected
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
MCU Port	The port name of the local storage system
RCU Port	The port name of the remote storage system
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add RCU Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add RCU Path
++S/N=XXXXX,MCU=X,RCU=X,MCU Port=1A,RCU Port=1B
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
S/N	The serial number of the remote storage system
MCU	The CU number of the local storage system "Free" is output when CU Free is selected
RCU	The CU number of the remote storage system "Free" is output when CU Free is selected
MCU Port	The port name of the local storage system to be added
RCU Port	The port name of the remote storage system to be added

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Resource(Group)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Resource(Group)
++Resource Group=AAAAAAAA,Controller ID=7,S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Resource Group	The name of a resource group to be created
Controller ID	The controller ID of the virtual storage machine No output when a virtual storage machine is not specified
S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Resource/Delete Resource

Example: when the resource of the operation target is LDEV

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Resource/Delete Resource
++Resource Group ID=AAAAAAAA,LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Resource Group ID	The number of a resource group to be registered or deleted

Item	Description
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be registered or deleted This item is output when the resource of the operation target is LDEV
PG	The number of a parity group to be registered or deleted This item is output when the resource of the operation target is PG
Port	The name of a port to be registered or deleted This item is output when the resource of the operation target is Port or Host Group
Host Group ID	The number of a host group to be registered or deleted This item is output when the resource of the operation target is Host Group
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Snap Pool

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Snap Pool
++Pool ID=AA,Pool Name=XXXXX
++LDEV(LDKC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool for Thin Image to be created
Pool Name	The pool name of a pool for Thin Image to be created No output if the pool name is not set
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of a pool volume
Num. of LDEVs	The number of pool volumes to be created
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Snapshot

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Snapshot
++Snapshot Group=SSSSSSSS,Pool ID=A,
P-VOL(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
S-VOL(LDKC:CU:LDEV)=0x00:0xCC:0xDD,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Snapshot Group	The name of a snapshot group
Pool ID	The pool ID of a pool to which a pair to be registered belongs
P-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the primary volume of a pair to be registered When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
S-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the secondary volume of a pair to be registered No output when a secondary volume is not specified
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add SPM Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add SPM Group
++WWN=XXXXXXXXXXX,Group Name=AAAAAAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
WWN	The WWN on which a group name is set
Group Name	The name of a group to be set
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add SPM WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add SPM WWN
++WWN=XXXXXXXXXXX,Nick Name=AAAAAAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
WWN	The WWN on which a nick name is set
Nick Name	The nickname to be set
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add SSID

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add SSID
++S/N=XXXXX,MCU=X,RCU=X,Controller ID=A,SSID=0xAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name

Item	Description
S/N	The serial number of the remote storage system
MCU	The CU number of the local storage system "Free" is output when CU Free is selected
RCU	The CU number of the remote storage system "Free" is output when CU Free is selected
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM No output if it is not specified at the command option
SSID	The SSID to be added
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add WWN
++Port=1A,WWN=XXXXXXXXXXXXXXXX,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a WWN is set When a virtual storage machine is specified, the port name of the virtual storage machine is output.
WWN	The WWN to be set
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Check External Storage Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
```

```
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Check External Storage Group
++PG=E1-1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Check External Storage Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Check External Storage Path
++Port=1B,WWN=XXXXXXXXXXXXXXXX,Path Group ID=A
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The port name of the external storage system
WWN	The WWN of the external storage system
Path Group ID	The path group ID of the external volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

CTQM

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=CTQM
++LDEV(CU:LDEV)=0x12:0x34,MU=5,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(CU:LDEV)	The LDEV number of the primary or secondary volume shared by a pair that is included in the consistency group for executing the command When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
MU	The MU number of the pair to which the LDEV belongs
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Copy Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Copy Group
++Copy Group=AAAAAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Copy Group	The name of a copy group to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Device Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Device Group
++Device Group=AAAAAAAA
++LDEV(LDKC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Device Group	The name of a device group to be deleted
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be deleted from the device group
Num. of LDEVs	The number of LDEVs to be deleted from the device group
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete External Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete External Group
++PG=E1-1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume "E" is added on the top of parity group number for the external volume to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Host Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Host Group
++Port=1A,Host Group ID=0x00,Host Group Name=AAAAAA,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port from which a host group is deleted When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Host Group ID	The ID of a host group to be deleted No output if it is not specified at the command option
Host Group Name	The name of the host group to be deleted No output when it is specified by the command option
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Journal

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Journal
++JNLG=0x001
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
JNLG	The number of a journal group to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Journal(Ldev)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Journal(Ldev)
++JNLG=0x001
++LDEV(LDKC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
```

```
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
JNLG	The journal group number
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of a journal volume to be deleted
Num. of LDEVs	The number of journal volumes to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Ldev

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Ldev
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete LUN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete LUN
++Port=1A,Host Group ID=0xXX,LUN=A,
LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port from which an LU is deleted When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Host Group ID	The ID of a host group from which an LU is deleted
LUN	The LU number to be deleted No output when it is specified by the command option
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be deleted No output when it is specified by the command option
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Path
++Port=1B,WWN=XXXXXXXXXXXXXXXX,Path Group ID=A
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The port name of the external storage system
WWN	The WWN of the external storage system
Path Group ID	The path group ID of the external volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Pool

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Pool
++Pool ID=AA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Pool(Ldev)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Pool(Ldev)
++Pool ID=AA
++LDEV(LDLC:CU:LDEV)={0x00:0xAA:0xBB,0x00:0xCC:0xDD,……,
0x00:0xEE:0xFF},Num. of LDEVs=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool ID of a pool whose capacity is to be decreased
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be deleted from the pool
Num. of LDEVs	The number of LDEVs to be deleted from the pool
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete RCU

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete RCU
++S/N=XXXXX,MCU=X,RCU=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
S/N	The serial number of the remote storage system
MCU	The CU number of the local storage system "Free" is output when CU Free is selected
RCU	The CU number of the remote storage system "Free" is output when CU Free is selected
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete RCU Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete RCU Path
++S/N=XXXXX,MCU=X,RCU=X,MCU Port=CL1-A,RCU Port=CL1-B
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
S/N	The serial number of the remote storage system
MCU	The CU number of the local storage system "Free" is output when CU Free is selected
RCU	The CU number of the remote storage system "Free" is output when CU Free is selected
MCU Port	The port name of the local storage system to be deleted

Item	Description
RCU Port	The port name of the remote storage system to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Resource(Group)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Resource(Group)
++Resource Group ID=AAAAAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Resource Group ID	The number of the resource group to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Snapshot

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Snapshot
++P-VOL(LDKC:CU:LDEV)=0x00:0xAA:0xBB,MU=A,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
P-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the primary volume of a pair to be deleted When a virtual storage machine is specified, the volume number of the virtual storage machine is output.

Item	Description
MU	The MU number of the pair to be deleted
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete SPM Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete SPM Group
++Port=1A,Group Name=XXXXXXXXXXXX
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a host group, in which the definition of priority is deleted, belongs
Group Name	The name of a host group in which the definition of priority is deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete SPM WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete SPM WWN
++Port=1A,WWN=XXXXXXXXXXXX
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name

Item	Description
Port	The name of a port to which a WWN, on which the definition of priority is deleted, belongs
WWN	The WWN on which the definition of priority is deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete SPM WWN(Nick Name)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete SPM WWN(Nick Name)
++Port=1A,WWN Name=XXXXXXXXXXXX
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a WWN, on which the definition of priority is deleted, belongs
WWN Name	The nick name of a WWN on which the definition of priority is deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete SSID

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete SSID
++S/N=XXXXX,MCU=X,RCU=X,SSID=0xAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name

Item	Description
S/N	The serial number of the remote storage system
MCU	The CU number of the local storage system "Free" is output when CU Free is selected
RCU	The CU number of the remote storage system "Free" is output when CU Free is selected
SSID	The SSID to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete WWN
++Port=1A,WWN=XXXXXXXXXXXXXXX,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port from which a WWN is deleted When a virtual storage machine is specified, the port name of the virtual storage machine is output.
WWN	The WWN to be deleted
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Disconnect External Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Disconnect External Group
++PG=E1-1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Disconnect Path

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Disconnect Path
++Port=1B,WWN=XXXXXXXXXXXXXXXX,Path Group ID=A
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The port name of the external storage system
WWN	The WWN of the external storage system
Path Group ID	The path group ID of the external volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Extend Ldev

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Extend Ldev
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the virtual volume for Dynamic Provisioning to be extended When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Initialize Ldev(Format)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Initialize Ldev(Format)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be formatted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Initialize Ldev(Shredding)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Initialize Ldev(Shredding)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,Data=00-FF-00
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV whose data is to be deleted
Data	The data pattern used for deleting the data 00-FF-00: Default pattern Random: Random value 0xXXXXXXXX (Hexadecimal number): User defined value
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Initialize Ldev(Stop Shredding)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Initialize Ldev(Stop Shredding)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV in which deletion of its data is to be stopped
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Map Resource(LDEV)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Map Resource(LDEV)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
Map LDEV(LDKC:CU:LDEV)=0x00:0xCC:0xDD
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the actual volume
Map LDEV(LDKC:CU:LDEV)	The virtual LDKC number, the virtual CU number, and the virtual LDEV number assigned to the actual volume "Reserve" is output if the reservation attribute of global-active device is set on the LDEV ID of the volume used as a secondary volume of a global-active device pair.
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Map Resource(Port)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Map Resource(Port)
++Port=1A,Map Port=1E
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The port name of the actual port
Map Port	The name of the virtual port assigned to the actual port
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Map Snapshot

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Map Snapshot
++P-VOL(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
S-VOL(LDKC:CU:LDEV)=0x00:0xCC:0xDD,
MU=1,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
P-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the primary volume. When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
S-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the secondary volume. When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
MU	The MU number of the mapped snapshot
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify CLPR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify CLPR
++PG=1-1,CLPR=0
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The number of a parity group for CLPR to be migrated The parity group number with "E" on the top of the name indicates that the parity group contains an external volume
CLPR	The CLPR number of the target of migration
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Device Group(Name)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Device Group(Name)
++Device Group=AAAAAAAA,Group Name=ABCDE
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Device Group	The name of a device group to be changed
Group Name	The name of the device group after the change
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify External Group(ALUA Switch)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify External Group(ALUA Switch)
++PG=E1-1,ALUA Switch=Enable
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
ALUA Switch	Indicates whether the ALUA mode is enabled or disabled Disable or Enable will appear
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify External Group(Cache Inflow)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify External Group(Cache Inflow)
++PG=E1-1,Cache Inflow=Enable
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
Cache Inflow	The inflow control setting of the cache of the external volume. Enable: Enabled, Disable: Disabled
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify External Group(Cache Mode)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify External Group(Cache Mode)
++PG=E1-1,Cache Mode=Enable
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
Cache Mode	The cache mode to be set Enable: The cache mode is enabled Disable: The cache mode is disabled Through: Cache through mode Write Sync: Write synchronous mode
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify External Group(Load Balance Mode)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify External Group(Load Balance Mode)
++PG=E1-1,Load Balance Mode=Extend
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
Load Balance Mode	The load balance mode to be set Normal: Standard round robin Extend: Extended round robin Disable: Disabled
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify External Group(MP Blade)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify External Group(MP Blade)
++PG=E1-1,MP Blade ID=0
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
PG	The parity group number of the external volume
MP Blade ID	The MP blade ID to be allocated to a target volume
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Host Group(Host Mode)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Host Group(Host Mode)
++Port=1A,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port on which the host mode is set When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify HostGroup(Host Mode Option)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify HostGroup(Host Mode Option)
++Port=1A,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port on which the host mode option is changed When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Journal

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Journal
++JNLG=0x001
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
JNLG	The number of a journal group to be changed
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Journal(MP Blade)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Journal(MP Blade)
++JNLG=0x001,MP Blade ID=A
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
JNLG	The number of a journal group to be changed
MP Blade ID	The MP Blade ID to be assigned to a target journal group
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Blocked)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Blocked)
```

```
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be blocked
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(CLPR)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(CLPR)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,CLPR=0
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV in which the CLPR is changed
CLPR	The number of the CLPR number to be changed
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Command Device)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Command Device)
++LDEV(LDKC:CU:LDEV)=0x00:0xFE:0xFF,Command Device=Disable,
Security=Disable,UserAuth=Disable
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be set
Command Device	Indicates whether the attribute of the command device is enabled or disabled Enable or Disable will appear
Security	Indicates whether the command device security is enabled or disabled Disable or Enable will appear
UserAuth	Indicates whether the user authentication is enabled or disabled Disable or Enable will appear
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Discard Zero Page)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Discard Zero Page)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV from which the zero data page is discarded
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Full Allocation)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Full Allocation)
++LDEV(LDKC:CU:LDEV)=0x00,0x01,0x02,Full Allocation=Enable
```

```
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV for which Full Allocation is set to be enabled or disabled
Full Allocation	The setting status of Full Allocation Enable: Full Allocation is enabled. Disable: Full Allocation is disabled.
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(MP Blade)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(MP Blade)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,MP Blade ID=A
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to which an MP Blade is assigned
MP Blade ID	The ID of the MP Blade to which the LDEV is assigned
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Nick Name)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Nick Name)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,Nick Name=AAAAAAAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV on which a name is designated
Nick Name	The name to be designated on the LDEV
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Quorum Disable)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Quorum Disable)
++LDEV(LDKC:CU:LDEV)=0x00:0x01:0x02
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the volume whose setting as a quorum disk used by global-active device is released
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Quorum Enable)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Quorum Enable)
++LDEV(LDKC:CU:LDEV)=0x00:0x01:0x02,Quorum Disk ID=1,
Controller ID=7,S/N=12345
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the volume to be set as a quorum disk used by global-active device
Quorum Disk ID	The ID of the quorum disk used by global-active device to be set
Controller ID	The controller ID of the storage system on which the quorum disk used by global-active device is set 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
S/N	The serial number of the storage system on which the quorum disk used by global-active device is set
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Restore)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Restore)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to be restored
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(SSID)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(SSID)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,SSID=0xAAAA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to which the SSID is set
SSID	The SSID to be set
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Ldev(Tier)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Ldev(Tier)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to which the Tier is relocated
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Pool Attribute

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Pool Attribute
++Pool ID=AA,Attribute=DP
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name

Item	Description
Pool ID	The pool number of a pool whose attribute is to be changed
Attribute	The pool attribute of the pool after the change DP: Dynamic Provisioning DT: Dynamic Tiering
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Pool(Restore)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Pool(Restore)
++Pool ID=AA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool to be restored
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Pool(Threshold)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Pool(Threshold)
++Pool ID=AA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool whose threshold is to be changed

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Port

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Port
++Port=1A,Speed(Gbps)=8,Fibre. Address=1,Fabric=Enable,
Connection=FC-AL,Switch=Enable,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port whose setting is to be changed When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Speed(Gbps)	The host speed of a port
Fibre. Address	The address of the Fibre Channel Port
Fabric	Indicates whether the Fabric switch is enabled or disabled Enable or Disable will appear
Connection	The topology of the Fabric switch FC-AL: FC-AL (Fibre Channel-Arbitrated Loop) is selected P-to-P: Point-to-Point is selected
Switch	Indicates whether the LUN security setting is enabled or disabled Enable or Disable will appear
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Port Attribute

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
```

```
+Command=Modify Port Attribute
++Port=1A,Attribute=Target
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port whose attribute is to be changed
Attribute	The attribute after the change Target: Target attribute Initiator: Initiator attribute External: External attribute RCU Target: RCU Target attribute
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify RCU

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify RCU
++S/N=XXXXX,MCU=X,RCU=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
S/N	The serial number of the remote storage system
MCU	The CU number of the local storage system "Free" is output when CU Free is selected
RCU	The CU number of the remote storage system "Free" is output when CU Free is selected
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Snapshot(Restore)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Snapshot(Restore)
++P-VOL(LDKC:CU:LDEV)=0x00:0xAA:0xBB,MU=A,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
P-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the primary volume shared by a pair to be restored When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
MU	The MU number of the pair to be restored
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Snapshot(Resync)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Snapshot(Resync)
++P-VOL(LDKC:CU:LDEV)=0x00:0xAA:0xBB,MU=A,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
P-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the primary volume shared by a pair to be resynchronized When a virtual storage machine is specified, the volume number of the virtual storage machine is output.

Item	Description
MU	The MU number of the pair to be resynchronized
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify Snapshot(Split)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify Snapshot(Split)
++P-VOL(LDKC:CU:LDEV)=0x00:0xAA:0xBB,MU=A,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
P-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the primary volume shared by a pair to be split When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
MU	The MU number of the pair to be split
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify SPM Group

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify SPM Group
++Port=1A,Group Name=XXXXXXXXXXX,Priority=Enable
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a host group, in which the definition of priority is set, belongs
Group Name	The name of the host group to which the definition of priority is set
Priority	Indicates the setting of the definition of priority Enable: The priority is given, Disable: The priority is not given
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify SPM WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify SPM WWN
++Port=1A,WWN=XXXXXXXXXXXX,Priority=Enable
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a WWN, on which the definition of priority is set, belongs
WWN	The WWN on which the definition of priority is set
Priority	Indicates the setting of the definition of priority Enable: The priority is given, Disable: The priority is not given
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Modify SPM WWN(NickName)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Modify SPM WWN(NickName)
++Port=1A,WWN Nick Name=XXXXXXXXXXXX,Priority=Enable
```

```
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which, on which the definition of priority is set, belongs
WWN Nick Name	The nickname of the WWN on which the definition of priority is set
Priority	Indicates the setting of the definition of priority Enable: The priority is given, Disable: The priority is not given
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Monitor Pool

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Monitor Pool
++Pool ID=AA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool to be monitored
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Paircreate

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Paircreate
++Copy Kind=Remote
++P-VOL(Port-LUN-LDEV)=1A-2047-0x1A,
S-VOL(Port-LUN-LDEV)=1B-3-0x3B,
MCU S/N=12345,MCU SSID=0x6500,RCU S/N=22364,RCU SSID=0x3001,
```

```
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Copy Kind	Indicates whether the copy kind is Local copy or Remote copy Local: Local copy, Remote: Remote copy
P-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the primary volume The port number and the LU number show the expanded LU of Command Control Interface
S-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the secondary volume The port number and the LU number show the expanded LU of Command Control Interface
MCU S/N*	The serial number of the local storage system
MCU SSID*	The SSID to which a volume for the local storage system belongs No output if it is not specified at the command option
RCU S/N*	The serial number of the remote storage system
RCU SSID*	The SSID to which a volume for the remote storage system belongs No output if it is not specified at the command option
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format
*When a virtual storage machine is specified, the value of the virtual storage machine is output.	

Pairresync

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Pairresync
++Copy Kind=Local
++P-VOL(Port-LUN-LDEV)=1A-2047-0x1A,
S-VOL(Port-LUN-LDEV)=1B-3-0x3B,
MCU S/N=12345,MCU SSID=0x6500,RCU S/N=12345,RCU SSID=0x3001,
Resync Type=Reverse,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Copy Kind	Indicates whether the copy kind is Local copy or Remote copy Local: Local copy, Remote: Remote copy
P-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the primary volume The port number and the LU number show the expanded LU of Command Control Interface No output when the pair operation is performed by Command Control Interface from the remote storage system
S-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the secondary volume The port number and the LU number show the expanded LU of Command Control Interface
MCU S/N*	The serial number of the local storage system No output when the pair operation is performed by Command Control Interface from the remote storage system
MCU SSID*	The SSID to which a volume for the local storage system belongs No output if it is not specified at the command option
RCU S/N*	The serial number of the remote storage system
RCU SSID*	The SSID to which a volume for the remote storage system belongs No output if it is not specified at the command option
Resync Type	Indicates the direction of resynchronizing a pair Normal: Normal direction (Primary volume to secondary volume) Reverse: Reverse direction (Secondary volume to primary volume.) This item is output only when the *Copy Kind* is *Local*.
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format
*When a virtual storage machine is specified, the value of the virtual storage machine is output.	

Pairsplit

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Pairsplit
```

```
++Copy Kind=Remote
++P-VOL(Port-LUN-LDEV)=1A-2047-0x1A,
S-VOL(Port-LUN-LDEV)=1B-3-0x3B,
MCU S/N=12345,MCU SSID=0x6500,RCU S/N=22364,RCU SSID=0x3001,
Range=LU,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Copy Kind	Indicates whether the copy kind is Local copy or Remote copy Local: Local copy, Remote: Remote copy
P-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the primary volume The port number and the LU number show the expanded LU of Command Control Interface No output when the pair operation is performed by Command Control Interface from the remote storage system
S-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the secondary volume The port number and the LU number show the expanded LU of Command Control Interface
MCU S/N*	The serial number of the local storage system No output when the pair operation is performed by Command Control Interface from the remote storage system
MCU SSID*	The SSID to which a volume for the local storage system belongs No output if it is not specified at the command option
RCU S/N*	The serial number of the remote storage system
RCU SSID*	The SSID to which a volume for the remote storage system belongs No output if it is not specified at the command option
Range	The range of pair split Group: Split by consistency group unit LU: Split by LU unit
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format
*When a virtual storage machine is specified, the value of the virtual storage machine is output.	

Pairsplit-S

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Pairsplit-S
++Copy Kind=Remote
++P-VOL(Port-LUN-LDEV)=1A-2047-0x1A,
S-VOL(Port-LUN-LDEV)=1B-3-0x3B,
MCU S/N=12345,MCU SSID=0x6500,RCU S/N=22364,RCU SSID=0x3001,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Copy Kind	Indicates whether the copy kind is Local copy or Remote copy Local: Local copy, Remote: Remote copy
P-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the primary volume The port number and the LU number show the expanded LU of Command Control Interface No output when the pair operation is performed by Command Control Interface from the remote storage system
S-VOL(Port-LUN-LDEV)*	The port number, the LU number, and the LDEV number of the secondary volume The port number and the LU number show the expanded LU of Command Control Interface
MCU S/N*	The serial number of the local storage system No output when the pair operation is performed by Command Control Interface from the remote storage system
MCU SSID*	The SSID to which a volume for the local storage system belongs No output if it is not specified at the command option
RCU S/N*	The serial number of the remote storage system
RCU SSID*	The SSID to which a volume for the remote storage system belongs No output if it is not specified at the command option
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Item	Description
*When a virtual storage machine is specified, the value of the virtual storage machine is output.	

Reallocate Pool(Start)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Reallocate Pool(Start)
++Pool ID=AA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool in which the manual tier relocation is performed
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Reallocate Pool(Stop)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Reallocate Pool(Stop)
++Pool ID=AA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool in which the manual tier relocation is interrupted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Rename Pool

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Rename Pool
++Pool ID=AA,Pool Name=XXXXXXX
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool to be renamed
Pool Name	The pool name after the change
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Replace Snapshot

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Replace Snapshot
++S-VOL(LDKC:CU:LDEV)=0x00:0xCC:0xDD,Snapshot Group=ABCDEF,MU=1,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
S-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the secondary volume. When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
Snapshot Group	The Snapshot Group name. The value is output only when Snapshot Group is specified.
MU	The MU number. The value is output only when an MU number is specified.

Item	Description
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Reset Command Status

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Reset Command Status
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Reset Ldev Priority

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Reset Ldev Priority
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
++WWN={AAAAAAAAA,BBBBBBBBB,……,DDDDDDDD},Num. of WWNs=X
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV from which the priority information is deleted.
WWN	The WWN to be deleted
Num. of WWNs	The number of WWNs to be deleted

Item	Description
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Reset WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Reset WWN
++Port=1A,Host Group ID=0xXX,WWN=XXXXXXXXXXXXXXXX,
Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a WWN, on which the nickname is deleted, belongs When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Host Group ID	The ID of a host group to which a WWN, on which the nickname is deleted, belongs
WWN	The WWN on which the nickname is deleted
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Set Ldev Priority

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Set Ldev Priority
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB
++{WWN,Priority}=[{123456789ABCDEF0,Disable}],Num. of WWNs=1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of an LDEV to which the definition of priority is set
WWN	The WWN to be set
Priority	Indicates the setting of the definition of priority Enable: The priority is given, Disable: The priority is not given
Num. of WWNs	The number of WWNs to be set
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Set WWN

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Set WWN
++Port=1A,Host Group ID=0x00,WWN=XXXXXXXXXXXXXXXX,
Nick Name=AAAAAAA,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The name of a port to which a WWN, on which the nickname is set, belongs When a virtual storage machine is specified, the port name of the virtual storage machine is output.
Host Group ID	The ID of a host group to which a WWN, in which the nickname is set, belongs
WWN	The WWN on which the nickname is set
Nick Name	The nickname to be set
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Stop Monitor Pool

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Stop Monitor Pool
++Pool ID=AA
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Pool ID	The pool number of a pool, the monitoring of which is stopped
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Unmap Resource(LDEV)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Unmap Resource(LDEV)
++LDEV(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
Map LDEV(LDKC:CU:LDEV)=0x00:0xCC:0xDD
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
LDEV(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the actual volume
Map LDEV(LDKC:CU:LDEV)	The virtual LDKC number, the virtual CU number, and the virtual LDEV number, whose assignments to the actual volume are released "Reserve" is output if the reservation attribute of global-active device set on the LDEV ID of the volume that is used as a secondary volume of a global-active device pair is released.
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Unmap Resource(Port)

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Unmap Resource(Port)
++Port=1A,Map Port=1E
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
Port	The port name of the actual port
Map Port	The name of the virtual port whose assignment to the actual port is released
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Unmap Snapshot

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,Out-of-band,uid=user-name,
196,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Unmap Snapshot
++P-VOL(LDKC:CU:LDEV)=0x00:0xAA:0xBB,
S-VOL(LDKC:CU:LDEV)=0x00:0xCC:0xDD,
MU=1,Virtual Storage Machine S/N=23456
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Item	Description
Command	The command name
P-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the primary volume. These values are output only when a primary volume is specified. When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
S-VOL(LDKC:CU:LDEV)	The LDKC number, the CU number, and the LDEV number of the secondary volume.

Item	Description
	These values are output only when a secondary volume is specified. When a virtual storage machine is specified, the volume number of the virtual storage machine is output.
MU	The MU number. The value is output only when the primary volume is specified.
Virtual Storage Machine S/N	The serial number of the virtual storage machine No output when a virtual storage machine is not specified
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Config Command (Mainframe system)

The following shows examples and descriptions of the audit logs when a storage system receives commands sent from hosts for mainframe system, computers using CCI, or hosts using Business Continuity Manager.

Business Continuity Manager

Add CTG

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add CTG
++Copy Type=TCMF,CTG=0x11
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
Copy Type	The copy type of the consistency group which is a target of registration or changing options SIMF: ShadowImage for Mainframe, TCMF: TrueCopy for Mainframe
CTG	The consistency group which is a target of registration or changing options
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add Pair

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add Pair
++Copy Type=URMF
++P-VOL(CU:LDEV)=0xAA:0xBB,S-VOL(CU:LDEV)=0xCC:0xDD,
MCU S/N=AAAAA,MCU SSID=0x3005,RCU S/N=BBBBB,RCU SSID=0x6500,
M-JNLG=0x001,R-JNLG=0x002
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
Copy Type	The copy type SIMF: ShadowImage for Mainframe, TCMF: TrueCopy for Mainframe, URMF: Universal Replicator for Mainframe
P-VOL(CU:LDEV)	The CU number and the LDEV number of the primary volume
S-VOL(CU:LDEV)	The CU number and the LDEV number of the secondary volume
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
M-JNLG	The journal group number of the local storage system This item is output only when the copy type is URMF.
R-JNLG	The journal group number of the remote storage system This item is output only when the copy type is URMF.
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Add RCU

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Add RCU
++MCU S/N=12345,MCU SSID=0x3000,RCU S/N=22345,RCU SSID=0x3001,
Controller ID=7
```

```
++{MCU Port,RCU Port,RCU CU}
=[{1A,1B,0x00},{2A,2B,0x01},{3A,3B,0x02}],Num. of Paths=3
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs No output if it is not specified at the command option
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs No output if it is not specified at the command option
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM No output if it is not specified at the command option
MCU Port	The port name of the local storage system
RCU Port	The port name of the remote storage system
RCU CU	The CU number of the remote storage system
Num. of Paths	The number of paths to be created
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

At-time Split

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=At-time Split
++Copy Type=SIMF,Kind=Set,CTG=0x11
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
Copy Type	The copy type SIMF: ShadowImage for Mainframe,

Parameter	Description
	URMF: Universal Replicator for Mainframe
Kind	The operation kind Set: Setting of a suspend reservation Reject: Releasing of a suspend reservation
CTG	The consistency group which is a target of a suspend reservation
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Build Command Device

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Build Command Device
++VOL(CU:LDEV)=0xAA:0xBB,APID=1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
VOL(CU:LDEV)	The CU number and the LDEV number of the volume to be allocated as a command device
APID	The application ID
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Change Tier Option

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Change Tier Option
++LDEV(CU:LDEV)
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
LDEV(CU:LDEV)	The CU number and the LDEV number of a volume the belonging storage tier of which is to be changed
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Command Device

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Command Device
++VOL(CU:LDEV)=0xAA:0xBB,APID=1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
VOL(CU:LDEV)	The CU number and the LDEV number of the volume, allocation for which as a command device is to be released
APID	The application ID
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete CTG

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete CTG
++Copy Type=TCMF,CTG=0x11
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name

Parameter	Description
Copy Type	The copy type of the consistency group to be deleted SIMF: ShadowImage for Mainframe, TCMF: TrueCopy for Mainframe,
CTG	The consistency group to be deleted
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete Pair

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete Pair
++Copy Type=URMF
++P-VOL(CU:LDEV)=0xAA:0xBB,S-VOL(CU:LDEV)=0xCC:0xDD,
MCU S/N=AAAAA,MCU SSID=0x3005,RCU S/N=BBBBB,RCU SSID=0x6500
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
Copy Type	The copy type SIMF: ShadowImage for Mainframe, TCMF: TrueCopy for Mainframe, URMF: Universal Replicator for Mainframe
P-VOL(CU:LDEV)	The CU number and the LDEV number of the primary volume
S-VOL(CU:LDEV)	The CU number and the LDEV number of the secondary volume
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Delete RCU

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Delete RCU
++MCU S/N=12345,MCU SSID=0x3000,RCU S/N=22345,RCU SSID=0x3001,
Controller ID=7
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs No output if it is not specified at the command option
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs No output if it is not specified at the command option
Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM No output if it is not specified at the command option
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

EXCTG

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=EXCTG
++EXCTG=0x03,Command=Add,Mirror ID=0x03
++{Slv S/N,Slv Controller ID,JNLG,Slv Cmd DEV(CU:LDEV)}
=[{12345,5,0x0FF,0xFE:0xFF},{12345,5,0x0FF,0xAB:0xFF},
{12345,5,0x0FF,0x03:0xFF}],Num. of JNLG=3
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
EXCTG	The extended consistency group ID
Command	Indicates whether to register or delete the extended consistency group Add: Register, Delete: Delete
Mirror ID	The mirror ID
Slv S/N	The serial number of the remote storage system
Slv Controller ID	The controller ID of the remote storage system 5: USP V/VM, 6: VSP, 7: VSP G1000, 19: HUS VM
JNLG	The journal group number
Slv Cmd DEV(CU:LDEV)	The CU number and the LDEV number of the command device for the remote storage system No output if the storage system is used as a super DKC
Num. of JNLG	The number of journal groups
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Freeze

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Freeze
++VOL(CU:LDEV)=0xAA:0xBB,CTG=0x11
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
VOL(CU:LDEV)	The CU number and the LDEV number of the volume which is a target of FREEZE
CTG	The consistency group which is a target of FREEZE
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Remote DKC Control

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Remote DKC Control
++S/N=XXXXX,SSID=0xBBBB,VOL(CU:LDEV)=0xAA:0xBB,APID=0,I/F=1
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
S/N	The serial number of the storage system for executing the command No output if it is not specified at the command option
SSID	The SSID to which a volume for the storage system for executing the command belongs No output if it is not specified at the command option
VOL(CU:LDEV)	The CU number and the LDEV number of the volume for executing the command No output if it is not specified at the command option
APID	The application ID No output if it is not specified at the command option
I/F	The interface number between the application and the storage system No output appears if it is not specified at the command option
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Resume Pair

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Resume Pair
++Copy Type=URMF
++P-VOL(CU:LDEV)=0xAA:0xBB,S-VOL(CU:LDEV)=0xCC:0xDD,
MCU S/N=AAAAA,MCU SSID=0x3005,RCU S/N=BBBBB,RCU SSID=0x6500
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
Copy Type	The copy type SIMF: ShadowImage for Mainframe, TCMF: TrueCopy for Mainframe, URMF: Universal Replicator for Mainframe
P-VOL(CU:LDEV)	The CU number and the LDEV number of the primary volume
S-VOL(CU:LDEV)	The CU number and the LDEV number of the secondary volume
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Run

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Run
++VOL(CU:LDEV)=0xAA:0xBB,CTG=0x11
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
VOL(CU:LDEV)	The CU number and the LDEV number of the volume which is a target of RUN
CTG	The consistency group which is a target of RUN
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Suspend Pair

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Suspend Pair
++Copy Type=URMF
++P-VOL(CU:LDEV)=0xAA:0xBB,S-VOL(CU:LDEV)=0xCC:0xDD,
MCU S/N=AAAAA,MCU SSID=0x3005,RCU S/N=BBBBB,RCU SSID=0x6500
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
Copy Type	The copy type SIMF: ShadowImage for Mainframe, TCMF: TrueCopy for Mainframe, URMF: Universal Replicator for Mainframe
P-VOL(CU:LDEV)	The CU number and the LDEV number of the primary volume
S-VOL(CU:LDEV)	The CU number and the LDEV number of the secondary volume
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

Suspend Pairs

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,
,,[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=Suspend Pairs
++CU=0x00,LDEV={0x01,0x02,(snip),0xFE},Num. of LDEVs=111
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
CU	The CU number of the secondary volume
LDEV	The LDEV number of the secondary volume
Num. of LDEVs	The number of secondary volumes
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

M Series

DEL PATH

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,,,
[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=DEL PATH
++MCU S/N=12345,MCU SSID=0x1234,RCU S/N=23456,RCU SSID=0x2345
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

EST PAIR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,,,
[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=EST PAIR
++P-VOL(LDEV)=0xAA,S-VOL(LDEV)=0xBB,MCU S/N=12345,
MCU SSID=0x1234,RCU S/N=23456,RCU SSID=0x2345
```

```
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
P-VOL(LDEV)	The LDEV number of the primary volume
S-VOL(LDEV)	The LDEV number of the secondary volume
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

EST PATH

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,,,
[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=EST PATH
++MCU S/N=12345,MCU SSID=0x1234,RCU S/N=23456,RCU SSID=0x2345
++{MCU Port,RCU Port,RCU CU}
=[{1A,1B,0x00},{2A,2B,0x00},{3A,3B,0x00}],Num. of Paths=3
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
MCU Port	The port name of the local storage system
RCU Port	The port name of the remote storage system
RCU CU	The CU number of the remote storage system

Parameter	Description
Num. of Paths	The number of paths to be created
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

SPLIT PAIRS

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,,,
[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=SPLIT PAIRS
++S-VOL(CU:LDEV)={0x00:0x01,0x01:0x02},Num. of S-VOL=2
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
S-VOL(CU:LDEV)	The CU number and the LDEV number of the secondary volume
Num. of S-VOLs	The number of the secondary volumes
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

SUSP PAIR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,,,
[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=SUSP PAIR
++P-VOL(LDEV)=0xAA,S-VOL(LDEV)=0xBB,MCU S/N=12345,
MCU SSID=0x1234,RCU S/N=23456,RCU SSID=0x2345
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
P-VOL(LDEV)	The LDEV number of the primary volume
S-VOL(LDEV)	The LDEV number of the secondary volume
MCU S/N	The serial number of the local storage system

Parameter	Description
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

TERM PAIR

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band MF,uid=user-name,,,
[Config Command],,,Accept,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+Command=TERM PAIR
++P-VOL(LDEV)=0xAA,S-VOL(LDEV)=0xBB,MCU S/N=12345,
MCU SSID=0x1234,RCU S/N=23456,RCU SSID=0x2345
+0000010200000000 0000000000000000
+0123456789ABCDEF 0123456789ABCDEF  0123456789ABCDEF,(snip)
```

Detailed Information

Parameter	Description
Command	The command name
P-VOL(LDEV)	The LDEV number of the primary volume
S-VOL(LDEV)	The LDEV number of the secondary volume
MCU S/N	The serial number of the local storage system
MCU SSID	The SSID to which a volume for the local storage system belongs
RCU S/N	The serial number of the remote storage system
RCU SSID	The SSID to which a volume for the remote storage system belongs
Command parameter	Indicates the 16 byte parameter added in the storage system and the command parameter in binary format

FC-SP

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band OPEN,<Host>,,,
[FC-SP],,,Normal end,from=xxxxxxxxxxxxxxxx,,Seq.=xxxxxxxxxx
```

- In-band OPEN
  The host is an open-system host.
- *from*=xxxxxxxxxxxxxx

WWN of the host that sent the command.

User Auth

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band OPEN,uid=user-name,
195,,[User Auth],Login,,Normal end,from=xxxxxxxxxxxxxxx,
AP=0xXXXX,Seq.=xxxxxxxxxx
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,In-band OPEN,uid=user-name,
195,,[User Auth],Logout,,Normal end,from=xxxxxxxxxxxxxxxx,
AP=0xXXXX,Seq.=xxxxxxxxxx
```

- In-band OPEN
  The host is an open-system host.
- *from*=xxxxxxxxxxxxxx
  WWN of the host that sent the command.
- *AP*=0xXXXX
  Internal ID used by the host and the storage system.

7

Audit log examples of PIN Deletion Tool operation

This topic provides examples and descriptions of the audit logs produced by the PIN Deletion Tool. For the detailed information of version numbers in log output examples, see Table 1-3 Format changes for each version number on page 1-10

- [PINDeletion] Delete

[PINDeletion] Delete

This log information indicates the completion of the PIN deletion operation, and does not indicate the completion of the PIN deletion processing.

Example

```
08xx,YYYY/MM/DD,HH:MM:SS.xxx, 00:00,SVP,uid=user-name,1,,
[PINDeletion],Delete,,Normal end,
from=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx,,Seq.=xxxxxxxxxx
+LDEV=[0x00:0x00:0x00,0x00:0x00:0x01],Num. of LDEVs=2
```

Detailed Information

Item	Description
LDKC:CU:LDEV	The LDKC, CU, and LDEV numbers
Num. of LDEVs	The number of set LDEVs

A

Audit log user operations

This topic describes the Device Manager - Storage Navigator operation and the corresponding operation name output to audit logs. A user can perform an operation either using a Device Manager - Storage Navigator menu, or clicking a button or using **General Tasks** in the main window, and the same log is output for the operation selected in different ways.

- Logging in or out
- Using Maintenance menu
- Using Actions menu
- Using Reports menu
- Using Settings menu
- Using Resource Lock menu
- Using External API
- When executing single sign-on from Hitachi Command Suite

Logging in or out

Table A-1 Logging in to or out from Device Manager - Storage Navigator

GUI operation	Audit Log Output		Notes
	Function Name	Operation Name	
Login	BASE	Login	--
Logout (Exit)		Logout	--
Session disconnected			Logout processing executed by server when session is disconnected
Tool Panel operation	BASE	Environment Setting	--
		Control Panel Backup	
		Control Panel Restore	
		Certificate Update	
		Release HTTP Block	
		Set Up HTTP Block	
		Update HCS Crt	
		Update SMIS CrtFiles	
		Upload SMIS ConfFile	

Using Maintenance menu

Table A-2 Maintenance Components (General)

GUI operation		Audit Log Output	
Submenu	Description	Function Name	Operation Name
Maintenance Components (General)	Operation on SVP	For details, see Appendix B, Audit log SVP operations on page B-1.	
Reset Microprocessor	Resetting microprocessor	Maintenance	MP Restore PCB Restore
A menu that is displayed only when accessing SVP with the remote desktop connection.			

Using Actions menu

Table A-3 Component

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Edit MP Blades	Editing the MP blade setting	PROV	Edit MP Blades
Edit High Temperature Mode	Settings of High Temperature Mode	BASE	Edit High TEMP Mode

Table A-4 Logical Device

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create LDEVs	Creating an LDEV	PROV	Create LDEVs CreateAlus Edit Full Allocation Edit V-VOL Option Format LDEVs Format LDEVs(H) Format LDEVs(Q) LDEV Name Set SSID
Delete LDEVs	Deleting an LDEV	PROV	Delete LDEVs DeleteAlus
Edit LDEVs	Editing LDEV information	PROV	Edit Full Allocation Edit LDEVs(tier) Edit V-VOL Option LDEV Name
Format LDEVs	Formatting an LDEV	PROV	Format LDEVs
	Formatting an LDEV using the Write to Control Blocks function	PROV	Format LDEVs(H)
	Quick formatting an LDEV	PROV	Format LDEVs(Q)
Block LDEVs	Blocking LDEVs	PROV	Block LDEVs
Restore LDEVs	Restoring an LDEV	PROV	Restore LDEVs
Shred LDEVs	Shredding an LDEV	VS	Shred LDEVs Abort Shredding[1]

GUI operation			Audit Log Output	
Submenu		Description	Function Name	Operation Name
				End Shredding
Assign MP Blade		Assigning an MP blade	PROV	Assign MP Blade
Migration	Migrate Volumes	Directing migrate volumes	VM	Migrate Volumes
	Delete Migration Plans	Deleting migration plans	VM	Del Migration Plans
	Delete All Histories	Deleting all histories of migration operation	VM	Delete All Histories
Add LUN Paths		Mapping an LUN path	PROV	Add LUN Paths
Delete LUN Paths		Removing an LUN path from an LDEV	PROV	Delete LUN Paths
Edit UUIDs		Changing UUID	PROV	Edit/Delete UUIDs
Delete UUIDs		Deleting UUID		
Expand V-VOLs		Increasing virtual volume capacity	PROV	Expand V-VOLs
Reclaim Zero Pages		Releasing pages in a virtual volume	PROV	Reclaim Zero Pages
Stop Reclaiming Zero Pages		Stop releasing pages in a virtual volume	PROV	Stop Reclm ZeroPages
Edit Command Devices		Editing Command Devices	PROV	Edit Cmd Dev(Auth) Edit Cmd Dev(DevGrp) Edit Cmd Dev(Sec) Edit Command Devices
Release Mainframe Command Devices		Releasing TrueCopy for Mainframe command devices	Remote Replication	Delete Cmd.Dev
Force Delete Mainframe DP VOLs[2]		Forcibly deleting a V-Vol for Dynamic Provisioning for Mainframe or Dynamic Tiering for Mainframe	PROV	Force Del MF V-VOLs

Notes:

1. Abort Shredding is output when a shredding operation is aborted from the Confirm window during a shredding operation by Shred LDEVs.
2. A menu that is displayed only when accessing SVP with the remote desktop connection.

Table A-5 Port/Host Group

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create Host Groups	Creating a host group	PROV	Add Hosts Create Host Groups Edit Host Grps(Mode)
Delete Host Groups	Deleting a host group	PROV	Delete Host Groups
Edit Host Groups	Editing host group settings	PROV	Edit Host Grps(Mode) Edit Host Grps(Name)
Add Hosts	Adding a host to the selected host group	PROV	Add Hosts
Add to Host Groups	Adding the selected host to a host group		
Remove Hosts	Removing a host from a host group	PROV	Remove Hosts
Delete Login WWNs	Deleting an unnecessary WWN	PROV	Delete Login WWNs
Edit Host	Editing host settings	PROV	Edit Host
Create Alternative LUN Paths	Creating an alternative LUN path	PROV	Add Hosts Add LUN Paths Create Host Groups Edit Host Grps(Mode)
Copy LUN Paths	Copying the selected LUN path	PROV	Add LUN Paths
Edit Ports	Editing port settings	PROV	Edit Ports(Address) Edit Ports(Attr) Edit Ports(Security) Edit Ports(Speed) Edit Ports(Topology)
View Host-Reserved LUNs > Release Host-Reserved LUNs[1]	Releasing Host-Reserved LUNs	PROV	Release HostReserved
Authentication	Setting port information Setting default such as user name and secret	PROV	Set FCSP Port Info[2, 3]
	Registering or deleting authentication information	PROV	Set FCSP Target[2, 3]

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
	Authentication (Host Group): Disable -> Enable or Enable -> Disable		
	Creating, changing, or deleting the host authentication information	PROV	Set FCSP Host[2, 3]
	Registering authentication Information Authentication Mode: bi-directional -> unidirectional or unidirectional -> bi-directional Authentication (Port): Enable -> Disable or Disable -> Enable	PROV	Set FCSP Port Switch[2, 3]

Notes:

1. Release Host-Reserved LUNs window opened from Host-Reserved LUNs window.
2. When you apply two or more settings of the same type to the storage system at the same time, the log information is output as one entry.
3. If one or more settings end abnormally when you have applied at one time, the output log information is *Error*, not *Warning*.

Table A-6 Pool

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create Pools	Creating a pool	PROV	Create/Expand Pools Edit/Delete Pools Pool Name
Delete Pools	Deleting a pool	PROV	Edit/Delete Pools Pool Name
Expand Pool	Increasing pool capacity	PROV	Create/Expand Pools
Shrink Pool	Decreasing pool capacity	PROV	Shrink Pool
Stop Shrinking Pools	Stop decreasing pool capacity	PROV	Stop Shrinking Pool
Edit Pools	Editing pool settings	PROV	Edit/Delete Pools

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
			Pool Name
Edit External LDEV Tier Rank	Editing the external LDEV tier ranks of pool volumes that are assigned to a pool	PROV	Edit LDEV Tier Rank
Monitor Pools	Starting the performance monitoring of a pool	PROV	Monitor Pools
Stop Monitoring Pools	Stopping the performance monitoring of a pool	PROV	Stop Monitoring
Start Tier Relocation	Starting the tier relocation of a pool	PROV	Relocate Pool
Stop Tier Relocation	Stopping the tier relocation of a pool	PROV	Stop Relocating
Restore Pools	Restoring a pool	PROV	Restore Pools
Initialize Pools*	Initializing a pool	PROV	Initialize Pools
Edit Tiering Policies	Editing Tiering Policies	PROV	Edit Tiering Policy
Complete SIMs	Completing SIMs related to a pool	PROV	Complete SIMs
*A menu that is displayed only when accessing SVP with the remote desktop connection.			

Table A-7 Parity Group

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Edit Encryption	Enabling/disabling data encryption	ENC	Edit Encryption

Table A-8 External Storage

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Add External Volumes	Mapping an external volume	UVM	Add External Volumes
Delete External Volumes	Releasing external volume mapping	UVM	Delete ES VOLs

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Edit External Volumes	Editing external volume settings	UVM	Edit ES VOLs
Disconnect External Volumes	Disconnecting an external volume	UVM	Disconnect ES VOLs
Reconnect External Volumes	Reconnecting an external volume	UVM	Reconnect ES VOLs
Assign MP Blade	Assigning an MP blade for an external volume	UVM	Assign MP Blade
Disconnect External Paths	Disconnecting an external path	UVM	Disconnect ES Paths
Reconnect External Paths	Reconnecting an external path	UVM	Reconnect ES Paths
Edit External WWNs	Editing external WWN parameters	UVM	Edit External WWNs
Edit External Path Configuration	Adding a path to an external path group Deleting a path from an external path group Changing priority among external paths	UVM	Edit ES Path Config
Disconnect External Storage Systems	Disconnecting an external storage system	UVM	Disconnect ES VOLs
Reconnect External Storage Systems	Reconnecting an external storage system	UVM	Reconnect ES VOLs

Table A-9 Local Replication

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create SI Pairs	Creating pairs for ShadowImage or ShadowImage for Mainframe	Local Replication	Create Pairs
Create TI Pairs	Creating pairs for Thin Image	Local Replication	Create Pairs
Split Pairs	Splitting pairs for ShadowImage, ShadowImage for	Local Replication	Split Pairs

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
	Mainframe, or Thin Image		
Resync Pairs	Resynchronizing pairs for ShadowImage, ShadowImage for Mainframe, or Thin Image	Local Replication	Resync Pairs
Suspend Pairs	Suspending pairs for ShadowImage or ShadowImage for Mainframe	Local Replication	Suspend Pairs
Delete Pairs	Deleting pairs for ShadowImage, ShadowImage for Mainframe, or Thin Image	Local Replication	Delete Pairs
Initialize Local Replica Pairs*	Initializing pairs for ShadowImage, ShadowImage for Mainframe, or Thin Image	Local Replication	Initialize
Assign Secondary Volumes	Assigning secondary volumes of Thin Image pairs	Local Replication	Assign S-VOLs
Removing Secondary Volumes	Removing secondary volumes of Thin Image pairs	Local Replication	Remove S-VOLs
Edit Local Replica Options	Editing option information for ShadowImage or ShadowImage for Mainframe	Local Replication	Edit Options
Edit SCP Time	Setting a SCP (State Change Pending) time to the mainframe host	PROV	Edit SCP Time
Reserve Mainframe CTGs	Reserving consistency groups for ShadowImage for Mainframe	Local Replication	Reserve CTG
Release Reserved Mainframe CTGs	Releasing reserved consistency groups for ShadowImage for Mainframe	Local Replication	Release Reserved CTG
* A menu that is displayed only when accessing SVP with the remote desktop connection.			

Table A-10 Remote Replication

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create TC Pairs	Creating pairs for TrueCopy or TrueCopy for Mainframe	Remote Replication	Create Pairs[1]
Create UR Pairs	Creating pairs for Universal Replicator or Universal Replicator for Mainframe	Remote Replication	Create Pairs[1]
Create GAD Pairs	Creating pairs for global-active device	Remote Replication	Create Pairs[1]
Split Pairs	Splitting pairs for TrueCopy, TrueCopy for Mainframe, Universal Replicator, or Universal Replicator for Mainframe	Remote Replication	Split Pairs[1]
Resync Pairs	Resynchronizing pairs for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, or global-active device	Remote Replication	Resync Pairs[1]
Delete Pairs	Deleting pairs for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for Mainframe, or global-active device	Remote Replication	Delete Pairs[1]
Suspend Pairs	Suspending pairs for global-active device	Remote Replication	Suspend Pairs[1]
Force Delete Pairs (TC Pairs)	Force deleting pairs for TrueCopy and TrueCopy for Mainframe	Remote Replication	Delete Pairs[1]
Force Delete Pairs (UR Pairs)	Force deleting pairs for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Delete Pairs[1]

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Force Delete Pairs (GAD Pairs)	Force deleting pairs for global-active device	Remote Replication	Delete Pairs[1]
Edit Pair Options	Editing pair options for TrueCopy, TrueCopy for Mainframe, Universal Replicator, or Universal Replicator for Mainframe	Remote Replication	Edit Pair Options[1]
Split Mirrors	Splitting mirrors for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Split Pairs[1]
Resync Mirrors	Resynchronizing mirrors for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Resync Pairs[1]
Delete Mirrors	Deleting mirrors for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Delete Pairs[1]
Edit Mirror Options	Editing mirror options for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Change Mirror Option[1]
Assign Remote Command Devices	Assigning remote command devices for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	R-Cmd.Dev.
Release Remote Command Devices	Releasing remote command devices for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	R-Cmd.Dev.
Edit Remote Replica Options	Editing remote replica options for TrueCopy, TrueCopy for Mainframe, Universal Replicator, Universal Replicator for	Remote Replication	Edit Options

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
	Mainframe, or global-active device		
Edit SCP Time	Setting a SCP (State Change Pending) time to the mainframe host	PROV	Edit SCP Time
Edit Remote Replica Function Switch[2]	Editing system options for TrueCopy and TrueCopy for Mainframe	Remote Replication	Edit Options
Clear SIM[2]	Collective clearing SIMs for TrueCopy for Mainframe and Universal Replicator for Mainframe	Remote Replication	Clear SIM

Notes:

1. When you apply two or more settings of the same type to the storage system at the same time, the log information is output as one entry.
2. A menu that is displayed only when accessing SVP with the remote desktop connection.

Table A-11 Journal

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create Journals	Creating journal volumes for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Journal Vol
Delete Journals	Deleting journal volumes for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Journal Vol
Edit Journal Options	Editing journal options for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Change JNL Option
Assign MP Blade	Migrating the journal ownership for Universal Replicator and Universal	Remote Replication	Journal Owner

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
	Replicator for Mainframe		
Assign Journal Volumes	Assigning journal volumes for Universal Replicator and Universal Replicator for Mainframe	Remote Replication	Journal Vol
When you apply two or more settings of the same type to the storage system at the same time, the log information is output as one entry.			

Table A-12 Remote Connection

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Add Remote Connection	Adding remote storage system connections	Remote Replication	Add RCU
Remove Remote Connections	Removing remote storage system connections	Remote Replication	Delete RCU
Edit Remote Connection Options	Editing remote storage system connection options	Remote Replication	Change RCU Option
Add Remote Paths	Adding remote storage system paths	Remote Replication	Add Path
Remove Remote Paths	Removing remote storage system paths	Remote Replication	Delete Path
Add SSIDs	Adding remote storage system SSIDs	Remote Replication	Add RCU
Remove SSIDs	Removing remote storage system SSIDs	Remote Replication	Delete RCU
When you apply two or more settings of the same type to the storage system at the same time, the log information is output as one entry.			

Table A-13 Mainframe Connection

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Compatible PAV	Add	CPAV	Add Alias[1, 2]

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
	Delete	CPAV	Delete Alias[1, 2]
Volume Retention Manager	Attribute	PROV	Edit VR Attribute[1]
	VTOC	PROV	VTOC[1]
XRC	Change XRC Option	XRC	Set XRC Option

Notes:

1. When you apply two or more settings of the same type to the storage system at the same time, the log information is output as one entry.
2. If you perform the Add Alias and Delete Alias operations at the same time, Delete Alias is executed first. If Delete Alias operation fails, Add Alias is not executed.

Table A-14 Other function

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Data Retention	Attribute / S-VOL / Reserved/ Mode Clear / Retention term	PROV	Edit DRU Attribute[1]
	Expiration-Lock	PROV	DRU Expiration Lock[1]
Cache Residency	Set Cache Residency (Open Volume)	PFM	Set Open DCR[1, 2]
	Set Cache Residency (M/F Volume)	PFM	Set M/F DCR[1, 2]
	Release Cache Residency (Open Volume)	PFM	Delete Open DCR[1, 2]
	Release Cache Residency (M/F Volume)	PFM	Delete M/F DCR[1, 2]
	Prestaging ON	PFM	DCR Prestaging[1, 3]

Notes:

1. When you apply two or more settings of the same type to the storage system at the same time, the log information is output as one entry.
2. If one or more settings end abnormally when you have applied at one time, the output log information is *Error*, not *Warning*.
3. The log information is output at the end, no matter when you perform the Cache Residency Manager operation.

Table A-15 Task Management

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Delete Tasks	Deleting a task	BASE	Delete Tasks
Resume Tasks	Resuming a task	BASE	Resume Tasks
Suspend Tasks	Suspending a task	BASE	Suspend Tasks
Disable Auto Delete	Disabling Task Auto Delete function	BASE	Disable Auto Delete
Enable Auto Delete	Enabling Task Auto Delete function	BASE	Enable Auto Delete

Table A-16 Configuration Report

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create Configuration Report	Creating a configuration report	BASE	Create Conf Report
Delete Reports	Deleting a configuration report	BASE	Delete Reports

Table A-17 Performance Monitor

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Edit Monitoring Switch	Starting/stopping monitoring	PFM	Edit Monitoring SW
Edit CU Monitor Mode	Setting target CUs for monitoring	PFM	Edit CU Monitor Mode
Edit WWN Monitor Mode	Setting target WWNs for monitoring	PFM	Edit WWN MonitorMode
Add New Monitored WWNs	Adding new WWNs for monitoring	PFM	Edit WWN MonitorMode
Edit WWN	Editing WWN	PFM	Edit WWN
Delete Unused WWNs	Deleting WWNs from monitoring targets	PFM	Delete Unused WWNs
Add to Ports	Adding monitored WWN to a port	PFM	Edit WWN MonitorMode

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Server Priority Manager (Port)	All Thresholds	SPM	Set All Prio Port[1, 2] Set Ctrl Kind
	Setting priority for ports (Attribute / Threshold / Upper)	SPM	Set All Prio Port Set Prio Port[1, 2]
	Initializing	SPM	Default Set[1, 2]
	Current Control Status (Port Control)	SPM	Set Ctrl Kind
	Clearing port settings due to removing port controllers	SPM	Clear SPM Info[2]
Server Priority Manager (WWN)	All Thresholds	SPM	Set All Prio WWN[1, 2]
	Setting priority for WWNs (Attribute / Upper)	SPM	Set All Prio WWN Set Prio WWN[1, 2]
	Changing WWN and SPM name	SPM	Set All Prio WWN Update WWN[1, 2]
	Current Control Status (WWN Control)	SPM	Set Ctrl Kind[1, 2]
	Adding WWN	SPM	Update Port WWN[1, 2]
	Deleting WWN	SPM	Update Port WWN[1, 2]
	Initializing	SPM	Default Set[2]
	Adding WWN (to SPM group)	SPM	Update SPMGrp[1, 2]
	Deleting WWN (from SPM group)	SPM	Update SPMGrp[1, 2]
	Adding SPM group and WWN	SPM	Set All Prio WWN Update SPMGrp[1, 2]
	Deleting SPM group	SPM	Set All Prio WWN SPMGrp Del/Chg Update SPMGrp[1, 2]
	Setting priority for SPM groups (Attribute / Upper)	SPM	Change SPMGrp[1, 2] Set All Prio WWN
	Changing SPM group name	SPM	Set All Prio WWN SPMGrp Del/Chg[1, 2]

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
	Clearing port settings due to removing port controllers	SPM	Clear SPM Info[2]

Notes:

1. When you apply two or more settings of the same type to the storage system at the same time, the log information is output as one entry.
2. If one or more settings end abnormally when you have applied at one time, the output log information is *Error*, not *Warning*.

Using Settings menu

Table A-18 User Management

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create User	Creating a new user account	ACM	Create User
Add Uses	Adding a user account to a user group	ACM	Add Users
Remove Users	Removing a user from a user group	ACM	Remove Users
Edit User	Editing settings of a user account	ACM	Edit User
Delete Users	Deleting a user account	ACM	Delete Users
Change Password	Changing a password	ACM	Change Password
Create User Group	Creating a new user group	ACM	Create User Grp
Edit User Group	Changing the name of a user group	ACM	Edit User Grp
Delete User Groups	Deleting a user group	ACM	Delete User Grps
Edit Resource Group Assignment	Changing the resource group assignment of a user group	ACM	Assign Resource Grps
Edit Role Assignment	Changing the role assignment of a user group	ACM	Assign Roles

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
View External Authentication Server Properties	Setting up Server	ACM	Setup Server

Table A-19 Resource Management

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Create Resource Groups	Creating a resource group	PROV	Create Resource Grps
	Adding a resource		Move Resources
Edit Resource Group	Changing a resource group name	PROV	Edit Resource Grp
Delete Resource Groups	Deleting a resource group	PROV	Delete Resource Grps
Add Resources	Adding a resource to a resource group	PROV	Move Resources
Remove Resources	Removing a resource from a resource group	PROV	Move Resources
Create CLPRs	Creating new CLPRs	VPM	Edit CLPR
Edit CLPR	Editing a CLPR		
Delete CLPRs	Deleting CLPRs		
Migrate CLPR Resources	Migrating parity groups to another CLPR		

Table A-20 Security

GUI operation			Audit Log Output	
Submenu		**Description**	**Function Name**	**Operation Name**
Edit Audit Log Settings		Setting up syslog and FTP server	AuditLog	Set Syslog Server Set FTP Server SIM Complete
Edit Login Message		Setting login message	ACM	Set Login Message
Encryption Keys	Create Keys	Creating encryption keys	ENC	Add keys to DKC[1]

GUI operation			Audit Log Output	
Submenu		Description	Function Name	Operation Name
				Create Keys[2] Create Keys On Serv[1, 9]
	Delete Keys	Deleting encryption keys	ENC	Delete Keys
	Rekey Certificate Encryption Keys	Updating certificate encryption keys	ENC	Rekey CEK
	Rekey Key Encryption Key	Updating key encryption keys	ENC	Create KEK Dynamic[9] Delete KEK Dynamic[9] Register KEK Dynamic[9] Rekey KEK Dynamic
	Retry Key Encryption Key Acquisition	Reacquisition of key encryption keys	ENC	Retry KEK Dynamic
	Backup Keys to File	Backing up keys on the Device Manager - Storage Navigator PC	ENC	Backup Keys Backup Keys to File
	Backup Keys to Server	Backing up encryption keys on the key management server	ENC	Backup Keys Backup Keys to Serv[9] Create Keys On Serv[9]
	Restore Keys from File	Restoring encryption keys with backup files on the Device Manager - Storage Navigator PC	ENC	Restore Keys Restore Keys fr File
	Restore Keys from Server	Restoring encryption keys with backup keys on the key management server	ENC	Restore Keys Restore Keys fr Serv[9]
	View Backup Keys on Server	Deleting encryption keys backed up on the key management server	ENC	Delete Keys on Server[9]
Encryption Keys	Edit Encryption Environmental Settings	Configuring encryption environment settings	ENC	Add keys to DKC[3] Create Keys[4] Create KEK Dynamic[5, 9] Create Keys On Serv[3, 9] DEK assign SpareDisk[6] DEK delete[7]

GUI operation			Audit Log Output	
Submenu		Description	Function Name	Operation Name
				Delete KEK Dynamic[8, 9] Edit ENC Settings Register KEK Dynamic[5, 9] Rekey CEK[6, 7] Set Up Key Mng Serv
	Edit Password Policy (Backup Encryption Keys)	Editing password policies for backing up encryption keys	ENC	Edit Password Policy

Notes:

1. Output when the encryption key is created on the key management server
2. Output when the encryption key is created on the storage system
3. Output when the key management server is changed to be enabled and the encryption environment setting is configured from the initial setting
4. Output when the key management server is changed to be disabled and the encryption environment settings is configured from the initial setting
5. Output when the status of the key management server is changed from Disable to Enable
6. Output when the encryption environment setting is configured from the initial setting
7. Output when the encryption environment setting is initialized
8. Output when the status of the key management server is changed from Enable to Disable
9. Output because access to the key management server is performed, following the GUI operation

Table A-21 Environmental Setting

GUI operation		Audit Log Output	
Submenu	Description	Function Name	Operation Name
Edit Storage System	Editing storage system information	BASE	Edit Storage System
Install Licenses	Installing licenses	PP KEY	PP Install chk[1, 2] PP Apply
	Installing licenses using the key code file	PP KEY	PP Install File chk[1] PP Apply
Remove Licenses	Uninstalling licenses	PP KEY	PP Removal chk[1] PP Apply

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Enable Licenses	Enabling licenses	PP KEY	PP Enable chk[1] PP Apply
Disable Licenses	Disabling licenses	PP KEY	PP Disable chk[1] PP Apply
Update License Statuses	Updating license statuses	PP KEY	Update License[1] PP Apply
Edit Alert Settings	Setting a destination of the alert	BASE	Edit Alert Setting
	Editing settings in the Syslog tab	BASE	Edit SIM Syslog Serv
	Editing settings in the SNMP tab	SNMP	Edit SNMP Agent
	Editing settings in the E-mail tab	E-Mail	MailAddress Write Valid Flag Update
Edit Advanced System Settings	Editing advanced system settings	BASE	Advanced Settings

Notes:

1. This is the audit log that is output when the setting operation is executed in the window. The PP Apply audit log is output at the time of completing the task.
2. The audit log is output per license key. When two or more license keys are installed at one time, only one PP Apply audit log is output at the time of completing the task.

Using Resource Lock menu

Table A-22 Resource Lock

GUI operation		Audit Log Output	
Submenu	**Description**	**Function Name**	**Operation Name**
Resource Lock	Cancelling lock forcibly	BASE	Unlock Forcibly

Using External API

Table A-23 Using External API

External API operations		Audit Log Output		Note
Command		Function Name	Operation Name	
CFLSET	Starts Operation	Spreadsheet	CflSet Start	Logs of operations performed by CFLSET command are output between CflSet Start and CflSet End.
	Ends operation		CflSet End	

When executing single sign-on from Hitachi Command Suite

Table A-24 When executing single sign-on from Hitachi Command Suite

GUI operations	Audit Log Output	
	Function Name	Operation Name
Issuing OneTimeKey from Hitachi Command Suite	BASE	HCSSO SetOneTimeKey
Launching Device Manager - Storage Navigator from Hitachi Command Suite		HCSSO Authentication

B

Audit log SVP operations

This topic describes SVP operations as well as function names and operation names that is output to audit logs.

- Logging in to or out from SVP
- Using Maintenance button
- Using Install button
- Using Information button
- Using Monitor button

Logging in to or out from SVP

Table B-1 Logging in to or out from SVP

SVP Operations	Audit Log Output		Note
	Function Name	Operation Name	
Login using the remote desktop access	BASE	Login	No parameters or detailed information
Logout using the remote desktop access	BASE	Logout	No parameters or detailed information
Rebooting SVP during the remote desktop access	BASE	Logout	No parameters or detailed information
Powering SVP off during the remote desktop access	BASE	Logout	No parameters or detailed information

Using Maintenance button

Table B-2 Using Maintenance button on SVP

SVP Operations		Audit Log Output	
Function	Operation	Function Name	Operation Name
Maintenance	Replace	Maintenance	Replace
Maintenance	Replace	Maintenance	Set Battery Life
Maintenance	Blockade	Maintenance	Blockade
Maintenance	Correction Copy	Maintenance	Correction Copy
Maintenance	Drive Interrupt	Maintenance	Drive Interrupt
Maintenance	Restore	Maintenance	Restore
Maintenance	Restore	Maintenance	MP Restore
Maintenance	Restore	Maintenance	PCB Restore
Maintenance	Restore	Maintenance	DMA Restore
Maintenance	Restore	Maintenance	DRR Restore
Maintenance	Restore Data	Maintenance	Restore Data
Maintenance	Size Change	Maintenance	Size Change
Maintenance	Format	Maintenance	Format
Maintenance	Format	Maintenance	Format Stop
Maintenance	Quick Format	Maintenance	Quick Format
Maintenance	Quick Format	Maintenance	Pre QuickFormat Stop
Maintenance	Verify	Maintenance	Verify

SVP Operations		Audit Log Output	
Function	**Operation**	**Function Name**	**Operation Name**
Maintenance	Verify	Maintenance	Verify Stop
Maintenance	Spare Disk	Maintenance	Spare Disk
Maintenance	SFP Maintenance	Maintenance	Type Change
Maintenance	Switch SVP	Maintenance	Switch SVP
Maintenance	Transfer Config	Maintenance	Transfer Config

Using Install button

Table B-3 Using Install button on SVP

SVP Operations		Audit Log Output	
Function	**Operation**	**Function Name**	**Operation Name**
Define Configuration and Install	Define Configuration and Install	Install	Define Config.
Logical Device Format	Logical Device Format	Install	Format
Logical Device Format	Logical Device Format	Install	Format Stop
Change Configuration	Installation	Install	Install
Change Configuration	Removal	Install	Remove
Change Configuration	System Option	Install	System Option
Change Configuration	DKU Emulation	Install	Dku Emulation
Change Configuration	System Tuning	Install	System Tuning
Change Configuration	LUN Configuration	Install	Set Fibre Address
Change Configuration	LUN Configuration	Install	Set Fibre Topology
Change Configuration	LUN Configuration	Install	Set Channel Speed
Change Configuration	LUN Configuration	Install	Set CommandDev

SVP Operations		Audit Log Output	
Function	**Operation**	**Function Name**	**Operation Name**
Change Configuration	LUN Configuration	Install	Set CommandDevSec
Change Configuration	LUN Configuration	Install	Add LU Path
Change Configuration	LUN Configuration	Install	Delete LU Path
Change Configuration	LUN Configuration	Install	Set DevGrpDef
Change Configuration	LUN Configuration	Install	Set Host Mode
Change Configuration	LUN Configuration	Install	Set Security Switch
Change Configuration	LUN Configuration	Install	Set UserAuth
Change Configuration	LUN Configuration	Install	Add WWN
Change Configuration	LUN Configuration	Install	Delete WWN
Change Configuration	LUN Configuration	Install	Change WWN
Change Configuration	LUN Configuration	Install	Add Host Group
Change Configuration	LUN Configuration	Install	Delete Host Group
Change Configuration	LUN Configuration	Install	Change Host Group
Change Configuration	LUN Configuration	Install	Delete DKC WWN
Change Configuration	LUN Configuration	Install	Force Reset
Change Configuration	DCR Configuration	Install	DCR Prestaging
Change Configuration	DCR Configuration	Install	M/F DCR
Change Configuration	DCR Configuration	Install	Open DCR
Change Configuration	CVS Configuration	Install	Install CV
Change Configuration	CVS Configuration	Install	Volume to Space

SVP Operations		Audit Log Output	
Function	**Operation**	**Function Name**	**Operation Name**
Change Configuration	CVS Configuration	Install	Make Volume
Copy Config Files	Configuration Update	Install	Update Config
Copy Config Files	All Configuration Files	Install	All Config
Copy Config Files	Create Configuration Backup	Install	Backup Config
Copy Config Files	Restore Configuration	Install	Restore Config
Micro Program Install	Micro Program	Install	Micro Program
Micro Program Install	MP Install	Install	MP Install
Set Subsystem Time	TOD Change	Install	Set Subsystem Time
Set Subsystem Time	Synchronization Information	Install	Set Subsystem Time
Set Subsystem Time	Edit > Change time zone	Install	Set Subsystem Time
Set IP address	Set IP address	Install	Set IP address
Initialize ORM Value	Initialize ORM Value	Install	Initialize ORM Value
Setting Battery Life	Setting Battery Life	Install	Set Battery Life
Set Machine Install Date	Set Machine Install Date	Install	Machine Install Date
Set Flash Drive ORM Value	Set Flash Drive ORM Value	Install	FlashDrive ORM Value

Using Information button

Table B-4 Using Information button on SVP

SVP Operations		Audit Log Output	
Function	**Operation**	**Function Name**	**Operation Name**
Log	Complete	Information	SIM Complete
Log	Delete	Information	Delete Log
Log	SIM Reporting Options	Information	SIM Reporting Option

SVP Operations		Audit Log Output	
Function	**Operation**	**Function Name**	**Operation Name**
Threshold Value	• Alter • Reset	Information	Threshold Value
Online Read Margin	• Alter • Reset	Information	ORM Value

Using Monitor button

Table B-5 Using Monitor button on SVP

SVP Operations		Audit Log Output	
Function	**Operation**	**Function Name**	**Operation Name**
Threshold	Threshold	Monitor	Threshold

C

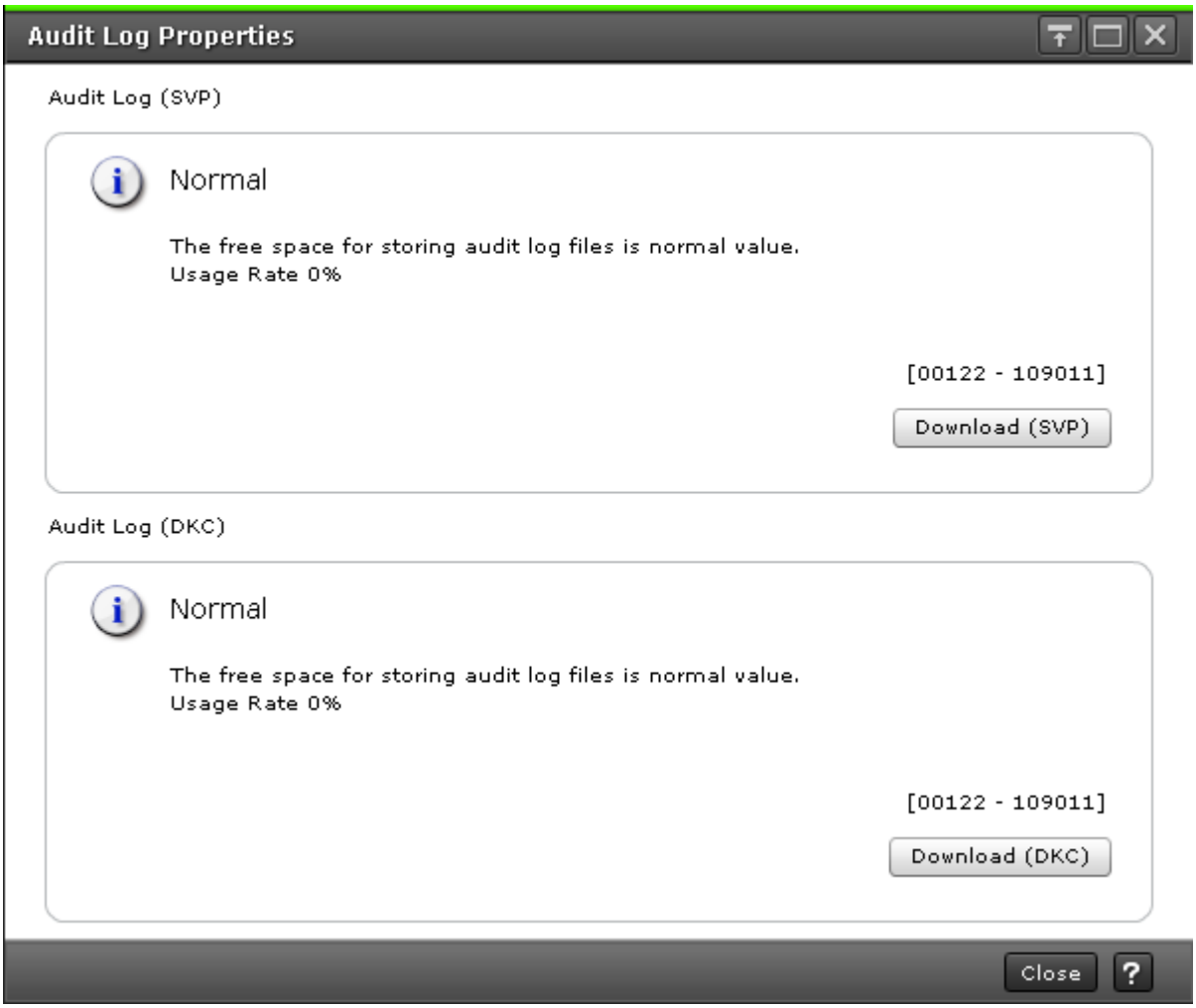
Audit log GUI reference

This topic describes the audit log screens in the Device Manager - Storage Navigator GUI. The GUI illustrations in this guide were created using a Windows computer with the Internet Explorer browser. Actual windows may differ depending on the operating system and browser used. GUI contents also vary with licensed program products, storage system models, and firmware versions.

- Audit Log Properties window
- Edit Audit Log Settings wizard

Audit Log Properties window

Use this window to download audit log files to the Device Manager - Storage Navigator computer.



Item	Description
Download (SVP)	The Audit Log (SVP) includes operations from Device Manager - Storage Navigator and SVP. This option downloads audit log: Audit log information file 1 to Device Manager - Storage Navigator computer.
Download (DKC)	The Audit Log (DKC) includes commands sent from hosts, computers using CCI, or hosts using Business Continuity Manager and events about encryption keys. This option downloads audit log: Audit log information file 2 to Device Manager - Storage Navigator computer.

Related topics

- Downloading audit log files on page 2-2

Edit Audit Log Settings wizard

Use the Edit Audit Log Settings wizard to transfer the audit log or download a syslog file to the Device Manager - Storage Navigator computer.

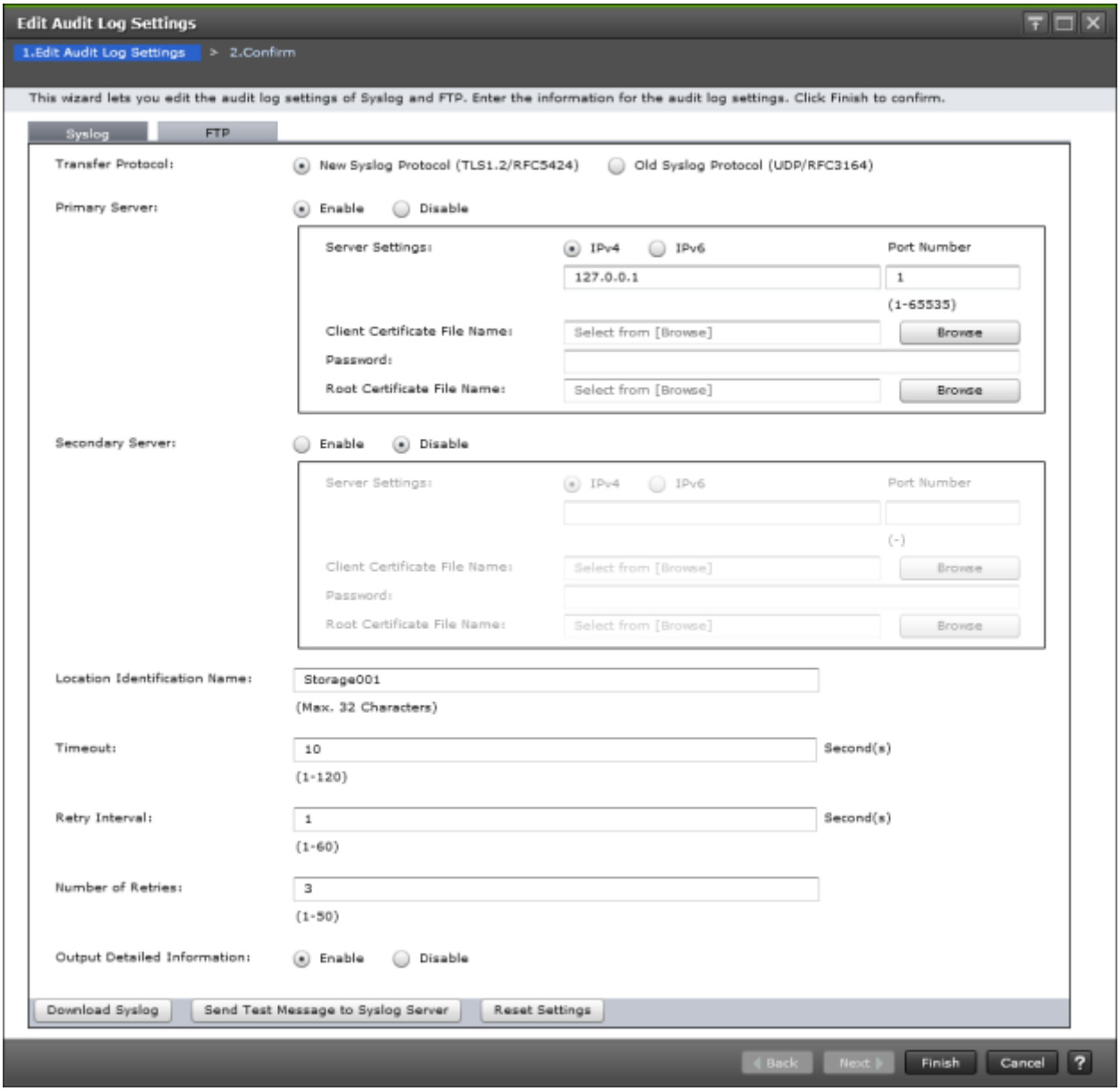
Related topics

- Downloading syslog files on page 2-2
- Automatically transferring audit log files to FTP servers on page 2-3
- Completing SIM generated when FTP transfer of audit log files failed on page 2-5
- Manually transferring audit log files to FTP servers on page 2-5
- Transferring audit log to syslog servers on page 2-6

Edit Audit Log Settings window

- Syslog tab on page C-4
- FTP tab on page C-7

Syslog tab



Item	Description
Transfer Protocol	Selects a protocol to transfer the audit log. • *New Syslog Protocol (TLS1.2/RFC5424)* • *Old Syslog Protocol (UDP/RFC3164)*
Primary Server	Selects whether to use the syslog server. • *Enable:* Transfers the audit log to the syslog server. • *Disable:* Do not transfer the audit log to the syslog server.
Primary Server-Server settings	Enters an IP address of a server you want to set as a syslog server.

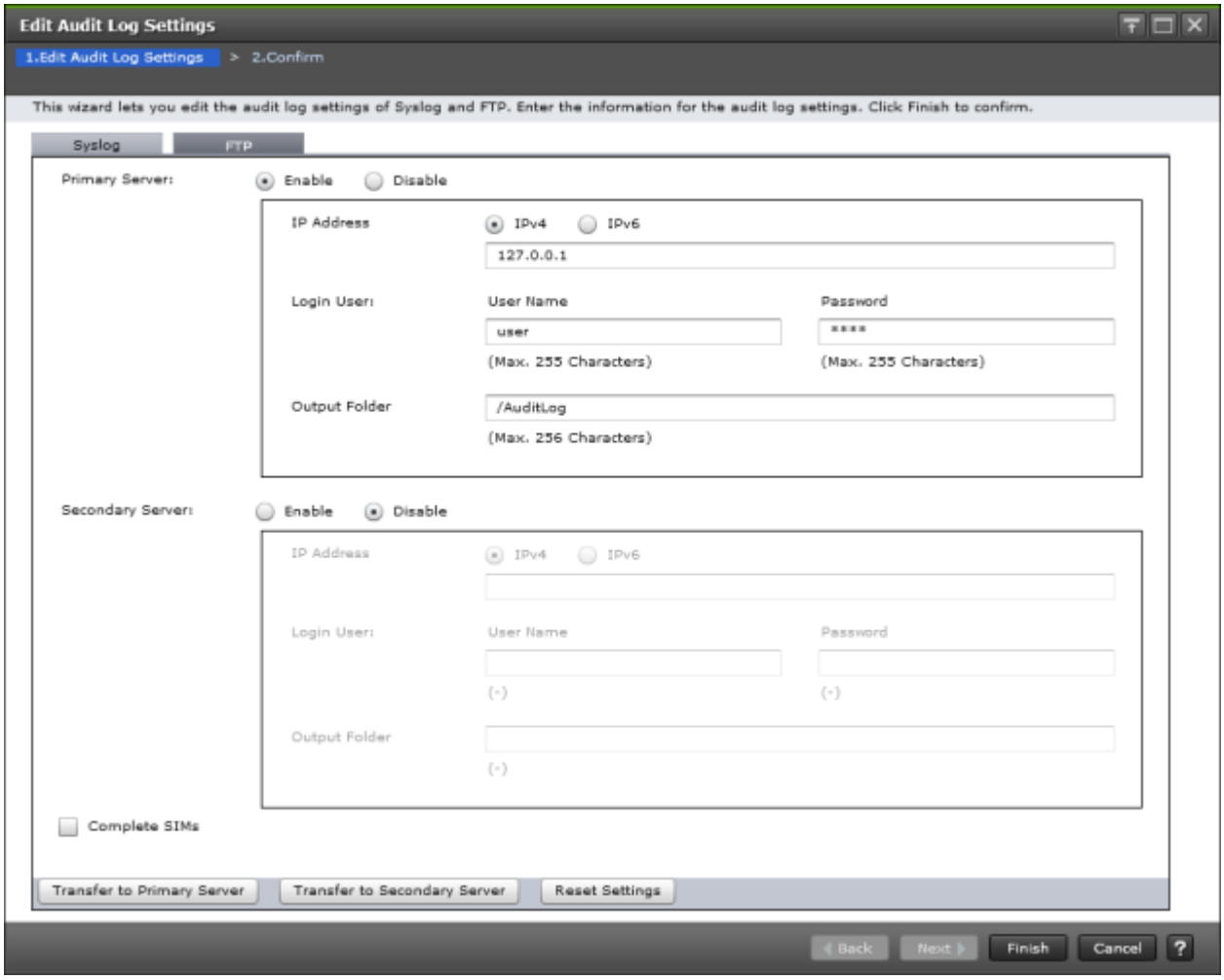
Item	Description
	• To set an IPv4 address, select *IPv4* and enter four integers in the range of 0 to 255 (for example, `nnn.nnn.nnn.nnn`, where n is a number). • To set an IPv6 address, select *IPv6* and enter eight hexadecimal alphanumeric in the range of 0 to FFFF. (for example, `hhhh:hhhh:hhhh:hhhh:hhhh:hhhh:hhhh:hhhh`, where h is a hexadecimal digit). An abbreviated style of IPv6 address can also be specified.
Primary Server- Port Number	Enters a port number to be used at the syslog server.
Primary Server- Client Certificate File Name	Specifies a certificate file. Click **Browse**, and then specify a certificate file. Specifies this item only when *New Syslog Protocol (TLS1.2/ RFCS5424)* is selected at *Transfer Protocol*.
Primary Server- Password	Enters a password for the client certificate. Up to 128 characters can be entered for the password. Allowed characters are alphanumeric characters and symbols: ! # $ % & ' ( ) * + , - . / : ; < = > ? @ [\ ] ^ _ ` { | } ~. Inputs this item only when *Client Certificate File Name* is specified.
Primary Server- Root Certificate File Name	Specifies a certificate file. Click **Browse**, and then specify a certificate file. Specifies this item only when *New Syslog Protocol (TLS1.2/ RFCS5424)* is selected at *Transfer Protocol*.
Secondary Server	Selects whether to use an alternative server (secondary server) to the syslog server. • *Enable:* Transfers the audit log to the secondary server. • *Disable:* Do not transfer the audit log to the secondary server.
Secondary Server- Server Setting	Enters an IP address of a server you want to set as a secondary server. The restriction for the available values is the same as that of *Primary Server- Server Setting*.
Secondary Server- Port Number	Enters a port number to be used on the secondary server.
Secondary Server- Client Certificate File Name	Specifies a certificate file. Click **Browse**, and then specify a certificate file. Specifies this item only when *New Syslog Protocol (TLS1.2/ RFCS5424)* is selected at *Transfer Protocol*.
Secondary Server- Password	Enters a password for the client certificate. Up to 128 characters password can be entered. The restriction for the available values is the same as that of *Primary Server- Server Setting*.
Secondary Server- Root Certificate File Name	Specifies a certificate file. Click **Browse**, and then specify a certificate file. Specifies this item only when *New Syslog Protocol (TLS1.2/ RFCS5424)* is selected at *Transfer Protocol*.

Item	Description
Location Identification Name	Enters an arbitrary name for the storage system that transfers the audit log to the syslog servers, so that you can identify the storage system. Enter 32 characters at the maximum. Allowed characters are alphanumeric characters and symbols: ! " # $ % & ' ( ) * + - . / : ; < = > ? @ [\ ] ^ _ ` { | } ~. A comma (,) and a space cannot be used.
Timeout	Enters the time to detect the timeout of communication with the syslog server in the range of 1 to 120 seconds. The default is 10 seconds. Inputs this item only when *New Syslog Protocol (TLS1.2/ RFC5424)* at *Transfer Protocol* is specified.
Retry Interval	Enters the retry interval when the communication with the syslog server fails in the range of 1 to 60 seconds. The default is 1 second. Inputs this item only when *New Syslog Protocol (TLS1.2/ RFC5424)* at *Transfer Protocol* is specified.
Number of Retries	Enters the number of retry times when the communication with the syslog server fails in the range of 1 to 50. The default is 3. Inputs this item only when *New Syslog Protocol (TLS1.2/ RFC5424)* at *Transfer Protocol* is specified.
Output Detailed Information	Selects whether to transfer the detailed information of the audit log to the syslog server. • *Enable*:Transfer the detailed information to the syslog server. • *Disable*: Do not transfer the detailed information to the syslog server. In the syslog file that is stored in the SVP, the detailed information is always stored regardless of this setting.

- Button

Item	Description
Download Syslog	Downloads the syslog file to the Device Manager - Storage Navigator computer.
Send Test Message to Syslog Server	Sends the test log to the syslog server.
Reset Settings	Cancel the change within tab.

FTP tab



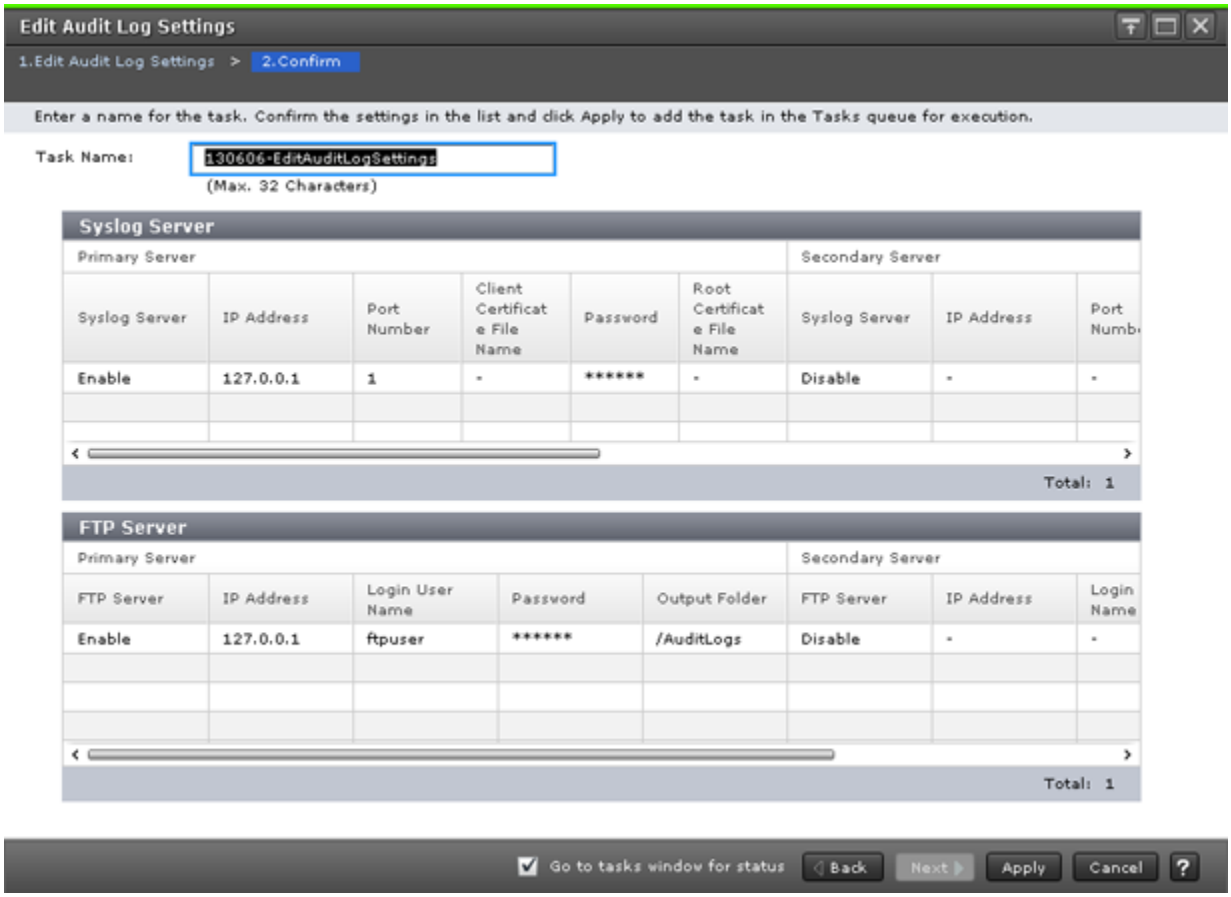
Item	Description
Primary Server	Selects whether to use the FTP server. • *Enable:* Transfers the audit log file to the FTP server. • *Disable:* Do not transfer the audit log file to the FTP server.
Primary Server- IP Address	Sets an IP address for the primary FTP server. You can set either IPv4 address or IPv6 address for IP address. • To set an IPv4 address, select *IPv4* and enter four integers in the range of 0 to 255 (for example, `nnn.nnn.nnn.nnn`, where n is a number). • To set an IPv6 address, select *IPv6* and enter eight hexadecimal alphanumeric in the range of 0 to FFFF. (for example, `hhhh:hhhh:hhhh:hhhh:hhhh:hhhh:hhhh:hhhh`, where h is a hexadecimal digit). An abbreviated style of IPv6 address can also be specified.
Primary Server- Login User	Sets the user name and password to log in to the primary FTP server. Enter up to 255 alphanumeric characters and symbols (ASCII codes) for user name and password.

Item	Description
Primary Server-Output Folder	Specifies the folder location to save the audit log file. The folder location should be relative to a home directory of a FTP server user. The default setting (/) is the home directory. Enter up to 256 alphanumeric characters and symbols (ASCII codes) for the output folder.
Secondary Server	Selects whether to use an alternative server (secondary server) to the FTP server. • *Enable:* Transfers the audit log file to the secondary FTP server. • *Disable:* Do not transfer the audit log file to the secondary FTP server.
Secondary Server-IP Address	Enters an IP address of a server you want to set as a secondary FTP server. The restriction for the available values is the same as that of *Primary Server- IP Address*.
Secondary Server-Login User	Sets the user name and password to log in to the secondary FTP server. The restriction for the available values is the same as that of *Primary Server- Login User*.
Secondary Server-Output Folder	Specifies the secondary FTP server folder location to save the audit log file. The restriction for the available values is the same as that of *Primary Server- Output Folder*.
Complete SIMs	Completes (resolve) the SIM that occurred when transferring audit logs to any FTP servers fails. Resolve the error condition, manually transfer the audit log file by clicking *Transfer to Primary Server* or *Transfer to Secondary Server*, and then complete the SIM. The SIM status will change to *Completed*. *Important:* If you do not complete the SIM, the SIM will not occur when an FTP transfer fails next time.

- Button

Item	Description
Transfer to Primary Server	The audit log file is transferred to the primary FTP server. You can transfer the current audit log file without waiting to reach the threshold value with the automatic transfer.
Transfer to Secondary Server	The audit log file is transferred to the secondary FTP server. You can transfer the current audit log file without waiting to reach the threshold value with the automatic transfer.
Reset Settings	Cancel the change within tab.

Confirm window



Syslog Server table

This table displays only when you have made settings in the Syslog tab of the Edit Audit Log Settings window.

Item	Description
Primary Server- Syslog Server	Indicates whether to use the syslog server or not.
Primary Server- IP Address	Indicates the IP address of the syslog server.
Primary Server- Port Number	Indicates the port number to be used on the syslog server.
Primary Server- Client Certificate File Name	Indicates the file name of the client certificate.
Primary Server- Password	Indicates the password of the client certificate with "*" mark.
Primary Server- Root Certificate File Name	Indicates the file name of the root certificate.

Item	Description
Secondary Server-Syslog Server	Indicates whether to use the alternative server to the syslog server.
Secondary Server-IP Address	Indicates the IP address of the alternative server to the syslog server.
Secondary Server-Port Number	Indicates the port number to be used on the alternative server to the syslog server.
Secondary Server-Client Certificate File Name	Indicates the file name of the client certificate.
Secondary Server-Password	Indicates the password of the client certificate with "*" mark.
Secondary Server-Root Certificate File Name	Indicates the file name of the root certificate.
Location Identification Name	Indicates the name to identify the storage system that transfer the audit log file to the syslog server.
Timeout (sec.)	Indicates the time to detect the timeout of communication with the syslog server in seconds.
Retry Interval (sec.)	Indicates the retry interval when the communication with the syslog server fails in seconds.
Number of Retries	Indicates the number of retry times when the communication with the syslog server fails.
Output Detailed Information	Indicates whether to transfer the detailed information of the audit log file to the syslog server.

FTP Server table

This table displays only when you have made settings in the FTP tab of the Edit Audit Log Settings window. When you only complete a SIM, items from Primary Server- FTP Server to Secondary Server-Output Folder do not display.

Item	Description
Primary Server- FTP Server	Indicates whether to use the FTP server or not.
Primary Server- IP Address	Indicates the IP address of the primary FTP server.
Primary Server-Login User Name	Indicates the login user name of the primary FTP server
Primary Server-Password	Indicates the password of the primary FTP server with "*" mark.
Primary Server-Output Folder	Indicates the output folder of the primary FTP server.

Item	Description
Secondary Server-FTP Server	Indicates whether to use an alternative server to the FTP server.
Secondary Server-IP Address	Indicates the IP address of the alternative server to the FTP server.
Secondary Server-Login User Name	Indicates the login user name of the alternative server to the FTP server.
Secondary Server-Password	Indicates the password of the alternative server to the FTP server with "*" mark.
Secondary Server-Output Folder	Indicates the output folder of the alternative server to the FTP server.
Complete SIMs	Yes displays when you complete a SIM. This item does not display when you do not complete a SIM.

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